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A STUDY OF THE TEACHER-ADMINISTRATOR RELATIONSHIP AND THE INFLUENCE OF NEED PATTERNS. FINAL REPORT.

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PERSONALITY TRAITS OF TEACHERS AND PRINCIPALS ARE EXAMINED FOR THEIR EFFECTS UPON TEACHER-ADMINISTRATOR RELATIONSHIPS. THE EDWARDS PERSONAL PREFERENCE SCHEDULE, THE NATIONAL PRINCIPALSHIP STUDY, AND THE ADMINISTRATIVE PREFERENCE FORM WERE ADMINISTERED TO TEACHERS AND PRINCIPALS FROM AN URBAN SCHOOL DISTRICT IN MICHIGAN. RESULTS INDICATE THAT THE NEED PATTERNS OF TEACHERS AND PRINCIPALS ARE QUITE SIMILAR. FURTHERMORE, THE NEED PATTERNS OF MALE ELEMENTARY TEACHERS, SECONDARY TEACHERS, AND PRINCIPALS ARE SIMILAR TO THOSE OF THEIR FEMALE COUNTERPARTS. THE SAME DATA INDICATED THE INVALIDITY OF THE THEORY OF COMPLEMENTARY NEEDS. (HM)

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The Influence of Need Patterns on the Teacher-Administrator Relationship

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ABSTRACT

A STUDY OF THE TEACHER-ADMINISTRATOR RELATIONSHIP AND THE INFLUENCE OF NEED PATTERNS.

by

Harvey Goldman

Purpose of the study. The role of personality traits and their influence on the teacher-administrator relationship has received little attention in the literature. This study sought to deal with this relationship in terms of new dimensions. Need patterns (as derived from the Edwards Personal Preference Schedule) were related to teachers' perceptions of their principals and to principals' attitudes toward their teachers. A major goal was to determine the validity of the Theory of Complementary Needs as it applied to the teacher-administrator relationship. A second objective was to investigate those factors which teachers recognized as pertinent in their evaluations of principals.

An investigation of the relationship between selected socio-economic and educational factors and various need patterns of teachers was also undertaken.

Methodology. Within a single urban school district in Michigan, fifty-five principals and six hundred fifty-seven teachers participated in the study.

All participating teachers completed the Edwards Personal Preference Schedule and the National

Principalship Study: Teacher Section. The principals completed the Edwards Personal Preference Schedule and the Administrative Preference Form, an instrument designed for use in this study.

Need patterns were derived from the Edwards Personal Preference Schedule for both teachers and administrators. From the National Principalship Study: Teacher Section information was obtained about teachers' attitudes toward their principals, factors related to those attitudes, and socio-economic data about the teachers themselves.

On the Administrative Preference Form each principal was asked to list the names of the quarter of his staff with whom he most preferred to deal and the quarter of his staff with whom he least preferred to deal in school-related situations.

Conclusions. The need patterns of teachers and principals were quite similar. Significant differences were found for only two variables. Principals expressed a significantly greater need for Deference and less for Autonomy than teachers. This indicated that, as a group, they were not highly independent or autonomous, and were not likely to play an active leadership role.

Male and female principals operating at both the elementary and secondary levels were found to have very similar need patterns.

Male teachers at the elementary and secondary levels had very similar need patterns, but numerous differences existed between the need patterns of elementary and secondary female teachers. The conclusion was drawn that level of teaching served to mask intra-sex differences.

The Theory of Complementary Needs was not found operative with respect to intensity of needs in this study. When the Complementary-Needs Hypothesis was investigated with respect to kind of needs, three significant relationships were found which supported the original premise. When principals exhibited high need for Order, those teachers who expressed affinity for them had low need for Change; when principals had high need for Aggression, those teachers who expressed affinity for them were high on the variable Abasement; when principals were rated low on the need for Deference, the teachers who expressed affinity for them exhibited low need for Aggression. The five other significant relationships found did not support the Complementary-Needs Hypothesis. On the basis of the data obtained, it was concluded that the Theory of Complementary Needs was not validated with regard to kind of needs.

Teachers felt that those principals who provided them with understanding and help in solving the problems they faced, and those who allowed teachers to participate in the decision-making processes of the schools, best fulfilled the role of principal that the teachers considered desirable.

Socio-economic, educational, and demographic factors were found to be related to personality patterns, but some factors were more discriminating than others.

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of

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A STUDY OF THE TEACHER-ADMINISTRATOR RELATIONSHIP AND THE INFLUENCE OF NEED PATTERNS

Harvey Goldman
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It would not only be difficult, but impossible, to conduct a study of this type without considerable assistance from other people. Because of the number and variety of operations involved, the study could never have been completed had not a number of people been so kind as to make available their special skills and talents.

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CHAPTER ONE

INTRODUCTION

Importance of study. The importance of a study of this type is, initially, best described by Hemphill when he states that "if we concern ourselves with these persons as individuals, we must consider, among other factors, their values, their traits, and their need-dispositions."[1] In effect, this constitutes Hemphill's declaration that there is a demand for information clarifying the relationship between need satisfaction and perceptions of individuals.

This study deals with the need patterns of teachers and school administrators, but also involves an attempt to relate those patterns to the teachers' evaluations of their principals, to the principals' evaluations of their teachers, and to a variety of socio-economic factors.

The results of the study could have a significant impact on administrative behavior. In particular, if the hypotheses tested are held to be valid, there would be considerable cause for review of present personnel selection and placement procedures. Certainly there would be cause to view administrative behavior in a new light.

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[1] John K. Hemphill, "Administration as Problem-Solving," in Administrative Theory In Education, edited by Andrew W. Halpin, Chicago: The Midwest Administration Center, University of Chicago, 1958, p. 107.

Perhaps it would be best to select and situate personnel in those positions where there would be a high degree of probability that such placement would contribute to faculty cohesiveness and at the same time better meet the needs of teachers. The need patterns of potential administrators might then become factors for consideration during selection and placement procedures.

If administrators were cognizant of the need patterns of those with whom they worked, and if such patterns were known to be aids in predicting individual behavior, it might be possible for them to modify their own behavior in order to maintain group cohesiveness and direction toward institutional goals.

Regarding any of these possibilities, and if the assumption that personality interaction affects institutional conflict is found to be true, a greater understanding of the interaction would make it possible to modify the degree of conflict existing in any segment of the institution. Determination of the amount of conflict considered desirable in any given situation would require a value judgment on the part of the administrative officer in charge.

In any case, it is certainly not being argued that need patterns could become the panacea everyone is seeking, but only that they might provide one more significant piece of information for use by administrators.

Theoretical basis for the study. The theoretical framework within which this study was fashioned is that set forth by Murray,[2] a formulation which accounts for the influence of personality traits on individual behavior in terms of interaction. To be more exact, "since psychology deals only with motion-processes occuring in time, none of its proper formulation can be static."[3] This sets the stage for the presentation of a theory of personality development based on man's relations to man; a theory that is dynamic in nature. Therefore, the development of an individual's personality is a function of many influences, some of which are internal while others are external. By internal we refer to physical aspects such as metabolic-rate. The external elements are assumed to be environmental or social. The physical composition of the body can affect personality development, but it must be recognized that within the environmental situations in which the individual finds himself there are numerous influential forces which also affect personality development. In fact, with reference to the dynamic approach to personality development, emphasis is placed on the situations with which the individual interacts. Thus dynamism emphasizes the study of total behavior patterns. The assumption is made that people utilize behavior to attain psychological equilibrium.

Murray's studies are based on the assumption that all people can have similar needs, and that the distinguishing factor among people is the intensity, endurance, and relationships between needs, rather than a difference in the kind of needs.

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[2] Henry A. Murray and others. Explorations in Personality, (New York: Oxford University Press, 1938), 761 pp.

[3] Ibid., p. 36.

A need can not be measured directly; instead, its existence must be inferred from some aspect of the situation that can be measured (i.e., behavior). These inferred needs are referred to as "forces", and can be treated as facts because such a construct is needed to develop a dynamic theory of personality. Each need is constantly interacting with other needs; one need succeeds another. On the basis of this rationale it can be stated that "a need is a hypothetical process the occurrence of which is imagined in order to account for certain objective and subjective facts."[4]

Needs can be divided into two categories-Viserogenic (Primary) and Psychogenic (Secondary). The viserogenic needs are physical in nature, such as the needs for food and warmth, while the psychogenic needs refer to mental or emotional states. From the total possible selection of needs a group of manifest needs can be drawn, these defined as those needs which can be inferred after observation of manifest behavior. It is with these needs that this study deals. The relationship of these needs to one another can be said to form a "need pattern" and is referred to by that name in this study.

One must also be cognizant of the fact that groups of needs operating in unison might lead an individual to respond to a stimulus quite differently than would the same needs operating independently.

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[4] _Ibid_., p. 54.

> When a single action pattern satisfies two or more needs at the same time we may speak of a fusion (F) of needs. Confluences of this kind are extremely common.[5]

It would seem, then, that if the existence of needs can be inferred through manifest behavior, then the observation and measurement of that behavior can be used as a basis for determining the intensity and endurance of needs as well as the possible combinations in which they might be operative with regard to a particular situation.

Statement of the problem. This study presents an analysis of the relationships between personality patterns of teachers and principals. Included is a study of the relationship when teachers and principals are asked to rate each other in terms of previously specified criteria. In this way the value of need patterns as a basis for predicting behavior can be ascertained. As the concommitants of these patterns are discovered, a better understanding of manifest behavior under conditions similar to those studied is possible. The investigation includes a test of the Complementary-Needs Hypothesis; thus it involves an attempt to determine whether teachers and administrators with similar or opposite need patterns work best together.

The Complementary-Needs Hypothesis, as stated by

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[5] *Ibid.*, p. 86.

Winch[6] is predicated on the basis that those with dissimilar need patterns will tend to work best together and those with similar patterns will not work well together. Winch hypothesized that need patterns can be similar or dissimilar in terms of intensity or of kind. An example of dissimilarity of the first type (intensity) would take place when a principal has a high need for dominance and a teacher exhibits a low need for dominance. For an example of the second type of dissimilarity (kind), a principal might possess a high need for dominance while the teacher exhibits a high need for deference.

Finally, the influence of selected socio-economic factors on need patterns will be considered. An investigation of the relationship between these factors and teachers' attitudes toward administrators will also be undertaken.

In this manner a "stepping-stone" relationship can be established. First, the effect of the need patterns themselves on the teacher-administrator relationship is to be studied. Then, factors related to the personality variables will be investigated. It is anticipated that one can then consider the effects of the related factors on the teacher-administrator relationship.

Definition of terms. In this study the terms "administrator" and "principal" are used interchangeably because principals are the only administrators involved in the study. Both elementary (K-6) and secondary (7-12) school principals are included in the study.

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[6] Robert F. Winch, and Thomas and Virginia Ktsanes. "The Theory of Complementary Needs in Mate Selection: An Analytic and Descriptive Study." The American Sociological Review, 19 No.3:241-49, June, 1954.

Teachers referred to are those personnel working in the schools whose only duty is that of teaching in the classroom. Both elementary and secondary teachers are included, and there is a possibility that some teachers may spend a small part of their days supervising study halls, cafeterias, school activities, or other similar duties. Only those teachers who were at least half-time classroom teaching employees were asked to participate in the study.

Within this study, a "need pattern" refers to the profile of needs derived from the Edwards Personal Preference Schedule. This pattern will also be referred to at times as a "personality profile" or "personality pattern." A listing of the needs and their definitions can be found in Chapter III, page 59.

Teacher affinity for principals is represented by the composite Executive Professional Leadership (EPL) score derived from the Teacher Section: The National Principalship Study (See Appendix B). This score represents the extent to which the principal conforms to the role of principal that the teacher sees as being desirable. The assumption is made in this study that a given teacher would express affinity toward a principal whose behavior conformed to the teacher's expectations; the opposite also being true, the teacher would express a lack of affinity (dislike) toward a principal whose behavior did not conform to his expectations. Throughout this study the Executive Professional Leadership score is referred to as the EPL.

Principal's preference for teachers was ascertained by asking them to list the quarter of their staffs with whom they most preferred to deal and the quarter with whom they least preferred to deal in the school setting. Specifically, they were asked to list the names of those teachers with whom they most and least preferred to deal on school-related committees, conferences, and decision-making situations. It was made clear at that time that the investigation did not seek to determine the effectiveness of each individual as a teacher, but only sought to determine the quality of interpersonal relations existing between the teachers and the principal.

Hypotheses. The purpose of this study is to determine the validity of the following hypotheses:

1. There will be differences between the need patterns of teachers and administrators as measured by the Edwards Personal Preference Schedule.

$$N_t \neq N_p$$

where N_t refers to teachers' need patterns and N_p to principals' need patterns.

2. Differences will exist between the need patterns of males and females as measured by the Edwards Personal Preference Schedule.

$$N_m \neq N_f$$

when N_m constitutes the need patterns of males and N_f is an expression of the need patterns of females.

3. Teachers who express affinity for their principals will have need patterns dissimilar to those of their principals, and teachers who express a disliking for their principals will have need patterns similar to those of their principals.

Similarity and dissimilarity will be considered in terms of intensity and kind. The relationship between teachers and affinity for principals with regard to intensity of needs is represented by the following equations.

$$\frac{N_t}{1} = \frac{1}{N_p} \quad \text{(for teachers who express affinity toward their principals)}$$

and

$$\frac{N_t}{1} = \frac{N_p}{1} \quad \text{(for teachers who express disliking toward their principals)}$$

when N_t represents the intensity of a given teacher's need pattern and N_p represents the intensity of a given principal's need pattern.

Dissimilarity of kind can be expressed by the equations which follow:

$$\frac{N_{ta}}{1} = \frac{N_{pb}}{1} \; ; \; \frac{N_{tc}}{1} = \frac{N_{pd}}{1} \; . \; . \; . \; . \quad \text{(for teachers who express affinity toward their principals)}$$

and

$$\frac{N_{ta}}{1} = \frac{1}{N_{pb}} \; ; \; \frac{N_{tc}}{1} = \frac{1}{N_{pd}} \; . \; . \; . \; . \quad \text{(for teachers who express disliking toward their principals)}$$

when N_{ta} and N_{tc} represent a teacher's specific needs, and N_{pb} and N_{pd} represent the specific needs of a principal. The teacher's need "a", in this case, is judged to be complementary to principal's need "b", and the same situation is judged to be true with regard to teacher's need "c" and principal's need "d".

4. Principals who express a preference to work with certain teachers will have need patterns dissimilar to those of the teachers, and principals who express an aversion to working with certain teachers will have need patterns similar to those teachers.

Similarity and dissimilarity will be considered in terms of intensity and kind. The relationship between principals and preference for teachers with regard to intensity of needs is represented by the following equations.

$$\frac{N_p}{1} = \frac{1}{N_t}$$ (for principals who express a preference toward working with certain teachers)

$$\frac{N_p}{1} = \frac{N_t}{1}$$ (for principals who express an aversion toward working with certain teachers)

when N_p represents the intensity of a given principal's need pattern and N_t represents the intensity of the same need pattern for a given teacher.

Dissimilarity of kind is expressed by the equations which follow.

$$\frac{N_{pa}}{1} = \frac{N_{tb}}{1} \; ; \; \frac{N_{pc}}{1} = \frac{N_{td}}{1} \ldots$$ (for principals who express a preference toward working with certain teachers)

and

$$\frac{N_{pa}}{1} = \frac{1}{N_{tb}} \; ; \; \frac{N_{pc}}{1} = \frac{1}{N_{td}} \; . \; . \; .$$ (for principals who express an aversion toward working with certain teachers)

when N_{pa} and N_{pc} represent a principal's specific needs, and N_{tb} and N_{td} represent the specific needs of a teacher. The principal's need "a", in this case, is judged to be complementary to teacher's need "b", and the same situation is judged to be true with regard to principal's need "c" and teacher's need "d".

5. There will be a direct relationship between the Executive Professional Leadership Score and the teacher-administrator relationship scores which are considered concommitants of EPL (i.e., Perceived Support of Teacher Authority, Perceived Level of Egalitarian Relationships, Perceived Managerial Support of Teachers, Perceived Social Support of Teachers, Perceived Staff Involvement).

This relationship is expressed as follows:

$$\frac{EPL}{1} = \frac{TAR_f}{1} \; .$$

Here, EPL refers to Executive Professional Leadership and TAR_f refers to those interpersonal relationships which are considered concommitants of EPL.

CHAPTER II

RELATED LITERATURE

General. Ryans, in an article about the implications of behavioral theory and research for teacher education, pointed out that the development of a theory of teacher behavior is still in its infancy.[7] He suggested the point of view that, in the development of such a theoretical construct, teachers should be regarded as information-processing systems. All environmental, physical, and psychological conditions would constitute the input factors and the observable behavior of the teachers would represent the output. The ultimate purpose of this approach, as stated in the article, is the acquisition of information about the influence of these variables on behavior to facilitate behavioral adaptation on the part of teachers. Emphasis was placed on the fact that the psychological states of teachers serve as input factors and have a considerable impact on behavioral reactions. It is therefore, necessary that an intensive study of psychological states and their ability to affect behavior be undertaken.

A study conducted by Lien[8] sought data noting the extent to which the behavior of selected secondary principals was democratic in nature. A principal finding was that, in general, principals did not exhibit the degree of democratic behavior that might be expected in our society; at the same time, the research did indicate a tendency toward democratic administration on the part of the principals. A second significant finding was that neither age, guidance courses completed, years of teaching experience, degrees earned, time elapsed since last attending college, type of undergraduate school attended, type of graduate school attended, size of secondary school attended, nor religious affiliation was a reliable factor in attempting to predict behavior. This failure to relate behavior to objective measures implies that other factors might have a greater impact.

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[7] David G. Ryans, "Teacher Behavior and Research: Implications for Teacher Education," Journal of Teacher Education, 14 No.3:274-293, September, 1963.

[8] Ronald L. Lien, "Democratic Administrative Behavior," The Bulletin of the National Association of Secondary School Principals, 48 No.291:31-38, March, 1964.

The conclusions of a study by Taylor indicated that there was evidence to support the use of personality testing as a part of the vocational guidance process.[9] He cautioned that those using the tests should not assume them to have predictive validity. As he stated at one point, ". . .the use of the Edwards Personal Preference Schedule as a guidance instrument requires the assumption that the need measures are relatively stable over a period of years."[10] At the same time, he did point out that considerable evidence existed which supports the thesis that such tests do have concurrent validity.

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[9] Bernard Harrison Taylor, Use of the Edwards Personal Preference Schedule In Establishing Personality Profiles for Three College Majors, Unpublished Master's Thesis, University of Washington, 1957.

[10] *Ibid.*, p. 29.

Motives, of which need-dispositions are one type, have been shown to affect the making of major decisions.[11] Teachers, according to this study, have two sets of values which operate independently. The first is a set of "personal gratifications (needs) which were being satisfied through the art of teaching," and the second is a "net of rationalizations, or attitudes, which supported and justified these gratifications."[12] After administering two instruments developed expressly for the study, a number of conclusions were drawn. The first was that undergraduate education majors scored higher on child-centered motives than did experienced teachers. A follow-up study after student teaching experience showed that their originally high child-centered motives had weakened considerably and that there was a corresponding strengthening of teacher-centered motives, indicating that the intensity of personality variables can change and that there is a tendency for teachers to be self-oriented rather than student-oriented. Evidence gathered during the study indicated that elementary teachers were significantly higher on child-centered and dependency motives than secondary teachers, but that the latter group was significantly higher with regard to motives for dominance.

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[11] Joseph Masling and George Stern, "Changes In Motives as A Result of Teaching," Theory Into Practice, 2 No.2: 95-104, April, 1963.

[12] *Ibid.*

In an investigation of another aspect of the situation, Leavitt[13] stressed the responsibilities of the administrator for organizational leadership. In particular, he stated that the leader is an initiator of organizational action, but that he is not, himself, a direct action person. Essentially, the leader's role is to organize and control his environment to accomplish desired goals. Three classes of controls, through which the environment can be managed, are structural, technical, and human. It was suggested that human controls are the most difficult to work with, and that they involve the changing of attitudes, relationships, and levels of aspiration. Within the text of the article it was stated that,

> Feelings and attitudes are generated by administrative acts whether we intend to generate them or not. . . Then we learned that those feelings and attitudes influenced work behavior.[14]

After underscoring the role of the administrator in making work interesting, challenging, and exciting for others, the author explained that one of the ways to do this is to involve others in the decision making process.

> Hence the development in recent years of programs within organizations and outside them for equipping administrators

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[13] Harold J. Leavitt, "Consequences of Executive Behavior; The Administrative Two-Step and Other Seemly Dances for Administrators," The Bulletin of the National Association of Secondary School Principals, 48 No.29:167-176, April, 1964.

[14] Ibid.

> with skills in setting up and leading groups, and skills in diagnosing and responding to what used to look like irrelevant human needs.[15]

In closing, he stressed the importance for the administrator of clearly understanding the nature of his organizational system and its many aspects.

One research team compared teachers in New York City special schools, New York City regular schools, and New York area suburban schools to determine the extent of problems concerning parent-teacher relationships, student discipline and classroom routine.[16] In the first case (parent-teacher relationships), it turned out that teachers from the New York City special schools were having the greatest amount of difficulty, the teachers from the New York City regular schools had the second greatest difficulty, and the suburban teachers had the least problem. In the second and third cases (discipline problems and those related to classroom routine) the teachers from New York City regular and special schools suffered equally while the suburban schools had the least difficulties. Findings also showed that there was a negative correlation between grade point average of teachers and the severity of the discipline problems they perceived. In conclusion, the question was raised as to whether the problems stated by the teachers were "real" or "perceived" as a result of previously internalized attitudes or personality traits.

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[15] _Ibid_.

[16] Stanley Dropkin and Marvin Taylor, "Perceived Problems of Beginning Teachers and Related Problems," _Journal of Teacher Education_, 14 No.4:384-390, December, 1963.

Discussing the need for appraisal and evaluation of prospective teaching personnel, Ryans expressed the opinion that the National Teacher Examination provided an adequate basis for evaluating the extent of their factual knowledge.[17] At the same time, he underscored the fact that more than knowledge is required if a person is to be an acceptable teacher. Information about attitudes, interests, level of motivation, and numerous other factors must be taken into consideration if the selection process is to be a complete one.

Personality variables, according to Heil,[18] are essential determinants of the effectiveness of the instructional process. As he pointed out,

> Much of our modern educational theory is based on the assumption of the teacher-education student as intellectualizing and self-accepting and of the child as striving and generally conforming.[19]

Further study by Heil indicated that different kinds of teachers were effective in different ways. In general, his research indicated that teachers fall into three personality-type groups: 1) THE SELF-CONTROLLING TYPE. These are most compatible in highly structured traditionally oriented classrooms and often work well with negative and opposing students; 2) THE SELF-ACCEPTING TYPE. These teachers are creative and value originality. They prefer unstructured intellectually oriented classrooms; and 3) THE SELF-EFFACING TYPE. This group of teachers is generally apprehensive and fearful. Their uncertainty brings about a confusing atmosphere in which it is difficult for students to learn. This personality type is likely to stress the mechanics of formal order and discipline. The author estimated that this group, which poses a serious problem for the schools, accounts for twenty-five to thirty per cent of all prospective elementary teachers. He recognized the extent to which the existence of personality types presents problems for school administrators.

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[17] David G. Ryans, "Appraising Teacher Personnel," Journal of Experimental Education, 16 No.1:1-30, September, 1947.

[18] Louis H. Heil, "Personality Variables: An Important Determinant In Effective Elementary School Instruction," Theory Into Practice, 3 No.1:12-15, February, 1964.

[19] Ibid.

> These problems should be considered both in the teacher-education programs and in the selection of teachers for particular schools.[20]

When scores derived from a personality inventory were compared with conclusions of independent raters who observed classroom teaching, it was found that the inventory could be utilized to predict some aspects of classroom behavior.[21] In general, it was found that there were no significant differences between the scores from the personality inventory and those obtained from the independent raters except for the Affiliation score on which those with high inventory scores exhibited warm, permissive, quiet, and controlled behavior while the control group exhibited behavior of an opposite nature. This, according to the authors, suggests that the relative strengths of some needs may determine behavior, but that other needs may function independently.

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[20] *Ibid*.

[21] Kenneth H. Wodtke and others, "Patterns of Needs As Predictors of Classroom Behavior of Teachers," *Educational and Psychological Measurement*, 23 No.3:569-577, Autumn, 1963.

Need patterns. The Edwards Personal Preference Schedule was originally standardized on a group of students all of whom had some college training and which is titled the College Sample in the test Manual.[22] The sample consisted of seven hundred forty-nine college women and seven hundred sixty college men enrolled in day and evening liberal arts courses at universities and colleges throughout the country. In this study men were shown to have significantly higher mean scores (at the one per cent level) than women for Achievement, Autonomy, Dominance, Heterosexuality, and Aggression; women's mean scores were significantly higher than men's (at the one per cent level) for Deference, Affiliation, Intraception, Succorance, Abasement, Nurturance, and Change. With regard to Order, Exhibition, and Endurance there were no significant differences.

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[22] Allen L. Edwards, Edwards Personal Preference Schedule Manual, New York: The Psychological Corporation, Revised, 1959, pp. 9-15.

A second study,[23] on a national basis, of approximately four thousand male and five thousand female household heads was also undertaken (involving five thousand one hundred and five households). In the test Manual, Edwards presented data from that study relative to male-female differences. As was true for the College Sample, men had significantly higher mean scores (at the one per cent level) than women on Achievement, Autonomy, Dominance, Heterosexuality, and Aggression. The women, as was true for the previously discussed sample, were significantly (at the one per cent level) different on the variables Deference, Affiliation, Intraception, Abasement, Nurturance, and Change. In addition to these differences, other significant differences appeared in the General Adult Sample which were not true for the College Sample. Here, the men had significantly higher mean scores (at the one per cent level) than women for Exhibition and Endurance, while the women's score for Order was significantly higher than the men's mean score. Although differences existed in the mean scores attained by men and women in the two samples, the general direction of all means was clearly the same.

Kemp[24] studied the need patterns of teachers, principals, and guidance counselors to determine similarities and differences, and utilized the Edwards Personal Preference

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[23] Ibid., p. 15.

[24] C. Gratton Kemp, "A Comparative Study of the Need Structures of Administrators, Teachers, and Counselors," Journal of Educational Research, 57 No.8:425-427, April, 1964.

Schedule in his research. He undertook the study to provide a basis for considering the advisability of interchanging roles among the three groups. It was found that no significant differences between the mean scores of administrators, teachers, or counselors existed as far as Abasement, Autonomy, Change, Dominance, and Heterosexuality were concerned. But principals were found to have significantly greater needs for Achievement and Endurance (at the .01 level), Aggression (at the .02 level) and Deference (at the .05 level) than the teachers. Teachers, on the other hand, had significantly greater need than the principals for Succorance (at the .05 level) and Nurturance (at the .001 level). While the needs of the three groups tended to be generally similar, there did appear to be definite areas of differentiation. On the basis of those differences Kemp concluded that the responsibilities of teachers, administrators, and counselors should be discrete and not overlapping, and that need patterns should be taken into consideration by graduate schools who train people in these areas.

Guba and Jackson, anticipating that knowledge about the structure of need patterns would offer clues as to why people select occupations and yield insights into job satisfaction and morale, studied three hundred sixty-six teachers from twenty-two schools in suburban Chicago.[25] In so doing, they took into consideration sex, years of teaching experience, and level of teaching. After comparing the mean scores of the teachers with those of the College Sample included in the test Manual, a number of conclusions were drawn. All males and female elementary and secondary teachers indicated a significantly greater need (at the .01 level) for Deference and significantly lower need (at the .01 level) for Heterosexuality. Female secondary teachers scored significantly lower than the norm (at the .01 level) on the need for Change, and all female teachers scored significantly low (at the .05 level for secondary teachers and the .01 level for elementary teachers) on the need for Dominance. Teachers' scores with regard to Intraception, Affiliation, and Nurturance, when compared with the scores obtained by the College Sample, were not significantly different. This led Guba and Jackson to conclude,

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[25] Egon G. Guba and Philip W. Jackson, "The Need Structure of In-Service Teachers: An Occupational Analysis," School Review, 65 No.2:176-192, September, 1957.

> Thus existing evidence indicates that teachers, in general, are not highly motivated by a strong interest in social service, by powerful nurturant needs, or even by a deep interest in children.[26]

When the Chicago teachers were distributed into three groups on the basis of experience (1. novices-0-3 years experience, 2. intermediates-4 to 9 years experience, and 3. veterans-10 or more years experience) and compared, other patterns evolved. These groups were separated by sex for purposes of comparison. Regardless of the experience level, male teachers scored significantly low on Heterosexuality. All levels of experience exceeded the College Sample norm for Deference and the difference became greater with experience. The veteran male group scored significantly low on the need for Exhibition, and this trend increased in inverse ratio to number of years experience.

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[26] *Ibid.*

For the groups of females, the needs for both Deference and Order increased with years of experience, while there was a downward trend with experience for Affiliation and Heterosexuality. Novice and intermediate females were low with regard to need for Exhibition, but the veteran mean dropped considerably. Although novice and veteran female groups scored high on need for Endurance, the mean of the veteran females was substantially higher. When comparing male and female veteran teachers with novice teachers, it was found that both groups of veteran teachers had very similar need patterns while male and female novices had very different need patterns. In general, it appeared that teachers were high on Deference, Order, and Endurance, and low on Exhibition and Heterosexuality.

> These characteristics appear to fit the stereotypic model of the teacher as sexually impotent, obsequious, eternally patient, painstakingly demanding, and socially inept-the stereotype which is frequently portrayed in the mass media.[27]

In conclusion, it was stated "that communalities do exist within the teaching population at the level of psychological need," and that "an occupational synchrome emerges which cuts across sex and teaching level boundaries."[28] The authors presented the hypothesis that these occurrences could be a result of any of the following factors: 1. Experienced teachers are a residual group which emerges as those who do not conform to their peers and elders leave the profession; 2. With experience, teachers' psychological needs tend more and more to conform to those with whom they work; 3. Both the above-mentioned factors operate simultaneously.

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[27] *Ibid*.

Gray[29] lamented the fact that more information about personality patterns was not available to counselors.

> Factors such as intelligence, interest, scholastic abilities, and special aptitudes have been reasonably well isolated, but the lack of investigation into personality characteristics satisfied in occupations has created a void that seriously limits the scope of the sophisticated counselor.[30]

His attempt to learn more about the relationship between personality patterns and job satisfaction involved comparisons between three occupational groups--teachers, mechanical engineers, and accountants--all of whom completed the Edwards Personal Preference Schedule and the Miller Occupational Values Indicator. With regard to the Edwards Personal

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[28] Ibid.

[29] James T. Gray "Needs and Values In Three Occupations," Personnel and Guidance Journal, 42 No.3:238-244, November, 1963.

[30] Ibid.

Preference Schedule no significant differences were found between accountants and mechanical engineers, but numerous differences were found between teachers and the two groups. Teachers mean scores were significantly higher than those of accountants for Deference, Affiliation, Intraception, Abasement, and Nurturance, while needs of accountants were significantly higher for Achievement, Exhibition, Dominance, and Endurance. When compared with mechanical engineers, results were very similar. Teachers had significantly higher needs for Affiliation, Intraception, Succorance, and Nurturance; on the other hand, engineers yielded significantly higher mean scores for Achievement, Order, Dominance, and Endurance.

Comparing teachers who were satisfied with their chosen field of work with education students and the College Sample used by Edwards to develop norms for his inventory, Tobin found a number of significant relationships.[31] His research was predicated on the notion that if more was known about need patterns and their relationship to job satisfaction, this information would be of great assistance in personnel selection and placement. The male teachers and the male education majors all were significantly higher (at the .01 level) on the variable Deference than the normative group. The author felt this indicated "that the variable Deference is closely tied in with job satisfaction for teachers."[32] Relatively high scores on the variables Order, Affiliation, and Endurance seemed to characterize male students who were likely to become satisfied teachers. Male teachers and male education students were significantly lower than the normative group with regard to needs for Dominance (at the .01 level) and Autonomy (at the .05 level). The sample of male teachers was lower than both the normative groups and the group of education students on the need for Heterosexuality (at the .01 level) and Intraception (at the .05 level).

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[31] Walter William Tobin, Use of the Edwards Personal Preference Schedule In Establishing Personality Profiles For Teachers and Education Students, Unpublished Master's Thesis, University of Washington, 1956.

The female teachers were higher than the normative group on need for Deference and Order (at the .01 level); they scored lower than the norm group on variables. Heterosexuality (at the .01 level), and Dominance and Aggression (at the .05 level). Female education students were, like the teachers, higher than the normative group on need for Deference (at the .05 level), and lower than the normative group on need for Dominance and Heterosexuality (at the .05 level). On the basis of the evidence derived from his study, Tobin made the following statement:

> This suggests that education students select teaching in part on the basis of the strengths or weaknesses of various personality needs.[33]

The Complementary-Needs Hypothesis. The Complementary-

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[32] Ibid., p. 13.

[33] Ibid., p. 22.

Needs Hypothesis was originally advanced by Winch and Ktsanes on the basis of studies of factors operative during the mate-selection process.[34] The theory is actually a theory of motivation; one which attempts to account for why people behave the way they do. The following three quotes provide a basic understanding of the Complementary-Needs Hypothesis.

> The basic hypothesis of the theory of complementary needs in mate-selection is that in mate-selection each individual seeks within his or her field of eligibles for that person who gives the greatest promise of providing him or her with maximum need-gratification. It is not assumed that this process is totally or even largely conscious.[35]
>
> It follows from the general motivational theory that both the person to whom one is attracted, and the one being attracted, will be registering in behavior their own need patterns. Then a second hypothesis follows from the first-that the need pattern of B, the second person or the one to whom the first is attracted, will be complementary rather than similar to the need-pattern of A, the first person.[36]
>
> It is now in order to explain the terms "need" and "complementary." We conceive of "need" as a goal-oriented drive, native or learned. . .[37]

This goal oriented drive enables the individual to organize his thoughts and actions in a manner permitting him to overcome unsatisfying situations.

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[34] Winch and Ktsanes, loc. cit.

[35] Winch and Ktsanes, op. cit., p. 246.

[36] Winch and Ktsanes, op. cit., p. 246.

[37] Winch and Ktsanes, op. cit., p. 246.

Complementariness of need patterns, as spoken of here, is discernable in terms of differences in intensity or kind. Differences in intensity are illustrated by the individual with a high need for dominance who marries an individual with a low need for dominance. A situation in which a person with a high need for dominance selects a mate with a high need for deference serves to illustrate differences of kind.

The sample of 50 people (25 married couples) involved in the study was highly homogeneous. They were all native Americans and of the same socio-economic status, race, religion, and age. All had been married two years or less and were childless. At least one member of each couple was an undergraduate student at Northwestern University. The data, on the basis of which the authors' conclusions were developed, were derived from three sources: 1) an initial interview from which evidence of needs was obtained; 2) a case-history interview; and 3) an eight card Thematic Apperception Test. In this study only the first source of information was dealt with. After the initial interview forty-four sub-variables (needs) were derived. Using the product-moment correlation it was possible to compute 1936 interspousal correlations. From the total number of possible correlations the authors, on the basis of the Theory of Complementary-Needs, hypothesized the signs of three hundred eighty-eight.

When a Chi-Square analysis was applied to the resulting coefficients of correlation, it was apparent that the data tended to support the Complementary-Needs Hypothesis. Of the three hundred eighty-eight possibilities, thirty-four were significant in the hypothesized direction at the one per cent level and seventy-one at the five per cent level. Two hundred twenty-one of the possible permutations fell in the hypothesized direction.

A second study by Winch[38] dealt with the analysis of all the data gathered in the initial study of mate selection. At this time the author utilized the following five sets of ratings obtained from independent judges: 1) a content analysis of the initial need interview; 2) a holistic analysis of the need interview; 3) a holistic analysis of the case history; 4) a holistic analysis of the Thematic Apperception Test; 5) a holistic analysis of the final conference. The results were quite similar to the initial study. A relatively small number of the permutations were significant (at the .05 level) in the hypothesized direction for each of the data categories, but many more fell in the hypothesized direction although not significant) than might have been expected by chance. In general, the trend was in support of the initial hypothesis.

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[38] Robert F. Winch, "The Theory of Complementary Needs In Mate Selection: Final Results in the Test of the General Hypothesis," American Sociological Review, 20 No.5:552-555, October, 1955.

Another test of the Theory of Complementary Needs was conducted by Ktsanes.[39] This study utilized the same sample of married couples involved in Winch's studies. At this time those in the sampling who exhibited similar factors (needs) were grouped together and were said to constitute a personality type. Four of the factors thus obtained were analyzed, the assumption being that if one member of a couple was high on a given factor then the other member would have a low rating on that factor (and vice versa). Utilizing the four factors discussed above, eight personality types were derived, and these accounted for forty-four of the fifty persons in the sampling. The remaining six had idiosyncratic personality patterns. Of the nineteen couples remaining in the sample after those who exhibited idiosyncratic patterns were disregarded, no husband and wife team fell into the same category of personality type. The author stated that the principal hypothesis appeared valid for two of the factor types, and that with respect to the others the trend was in the same direction (but not conclusively so).

Murstein[40] studied newly married and middle-aged married couples in an attempt to determine the validity of the

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[39] Thomas Ktsanes, "Mate Selection on the Basis of Personality Type: A Study Utilizing An Empirical Typology of Personality," American Sociological Review, 20 No.5:547-551, October, 1955.

[40] Bernard I. Murstein, "The Complementary Needs Hypothesis In Newlyweds and Middle-Aged Married Couples," Journal of Abnormal and Social Psychology, 63 No.1:194-197, July, 1961.

Complementary-Needs Hypothesis. The Edwards Personal Preference Schedule was administered to all participants in the study. He concluded that,

> For adequate marital adjustment some needs require complementary components in the marital partner, while others necessitate homogamous need patterns.[41]

His results indicated that the strength of any given need can vary with the individual and the situation.

Bowerman and Day,[42] using the Edwards Personal Preference Schedule, investigated the Complementary-Needs Hypothesis with a sample of sixty college couples who were engaged, dating consistently, or going steady. It was hypothesized that fifteen of the possible need intercorrelations (involving the same needs) would be negative and two hundred ten (involving different needs) would be positive. The results, however, showed that only two of the fifteen like-need correlations were negative, and neither of these was statistically significant. At the same time, only four of the anticipated positive correlations were significant at the five per cent level, and they were in a direction which supported the Theory of Homogamous Needs in mate selection rather than the Complementary-Needs Hypothesis.

On the basis of the data obtained the authors concluded that the evidence did not support the Complementary-Needs Hypothesis.

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[41] Ibid.

[42] Charles E. Bowerman and Barbara R. Day, "A Test of the Complementary Needs Hypothesis As Applied to Couples During Courtship," American Sociological Review, 21 No.5:602-605, October, 1956.

> Of all the needs which could be listed, we might expect only a few to be highly relevant to mate selection and marital adjustment. Furthermore, there is no reason to believe that all needs should be either homogamous or complementary.[43]

Burgess and Wallin[44] reported a study of one thousand engaged couples through which they hoped to determine the influence of need patterns on mate-selection. By utilizing engaged couples they hoped to escape the criticism that homogamous or complementary need patterns were attributable to the time spent together while married. Information about physical and psychological characteristics of the one thousand couples was obtained, and the resulting evidence tended to substantiate a homogamous theory of mate-selection with respect to both sets of factors. For five out of six physical traits the data gathered was statistically significant in the direction that tended to show that "like mates with like." For seventeen of thirty-one personality characteristics examined, there was a greater than chance combination that men and women with similar traits would be engaged. The major problem, as stated by the authors, is that of determining what the need patterns of engaged couples are and the chances of their being fulfilled in engagement and marriage.

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[43] Ibid.

[44] Ernest W. Burgess and Paul Wallin, Courtship, Engagement, and Marriage. (New York: J.B. Lippincott Company, 1954), pp. 111-115.

Becker,[45] in a test of the Complementary-Needs Hypothesis, administered the Edwards Personal Preference Schedule to thirty-nine couples married two years or less, engaged, or dating steadily. Another battery of tests from which as F score, representing authoritarianism, was derived was also administered. He derived the following conclusions: 1) whether dominance is part of complementary or a homogamous relationship depends, in large part, on the authoritarian attitude of the couple; 2) differences in authoritarianism can be attributed to the male partner of the couple, while it is the female partner who determines differences in Dominance; 3) we need more research concerning the mediating processes through which complementarity and similarity are determined. In general, the conclusions indicated that,

> . . .symbiosis, if selectively operative, can be demonstrated only when the conditions under which it operates are specified and samples are selected for research in accordance with those specifications.[46]

The need patterns of divorced couples were compared with those of successfully married couples in a study by Carman.[47] All participants in the study were administered the Edwards

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[45] Gilbert Becker, "Complementary Needs Hypothesis, Authoritarianism, Dominance, and Other Edwards Personal Preference Schedule Scores," Journal of Personality, 32 No. 1:45-56, March, 1964.

[46] Ibid.

[47] Philip McClellan Carman, The Relationship of Individual and Husband-Wife Patterns of Personality Characteristics to Marital Stability, Unpublished Doctoral Dissertation, University of Washington, 1955.

Personal Preference Schedule. The two groups were controlled for age, length of time married, education, number of previous marriages, religious preferences, number of children, and type of occupation.

Divorced men and women were found to have significantly higher scores (at the .01 level) on the variable Intraception than married men or women. The author felt this was understandable since,

> . . .the tendency to analyze others' motives could be a real handicap to adjustment in marriage. Persons who tend to interpret the actions of others may be inclined to interpret the actions of their spouses in highly personalized ways.[48]

The divorced men had a significantly greater need (at the .05 level) for Succorance than married men. Married men exhibited a greater need for Endurance than married women while divorced men manifested a considerably lower need for Endurance than divorced women. Married men achieved significantly lower need scores (at the .01 level) for Intraception than divorced men. Generally, the research did not indicate that need patterns were highly related to marital stability. Married women tended to display those characteristics usually associated with their sexual role to a greater extent than divorced women.

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[48] Ibid., p. 70.

Two researchers[49] addressed themselves to studying the influence of managerial traits on group effectiveness. They were concerned with the fact that in some group situations, an effective outcome requires a coordinated and somewhat harmonious interaction; this is particularly true with regard to the managerial functions of planning, integrating, and directing the activities of individual organization members. Of prime concern here were two traits: 1) supervisory ability and 2) the decision-making approach. The study was conducted by having different combinations of participants integrate their skills to operate two electric trains over the same track. The authors found that when one member of a given pair had a high rating with regard to supervisory ability or the decision-making approach, there was no guarantee that it would be a significantly more productive combination.

It was when a member of a combination was uncontested with regard to supervisory ability or decision-making approach that the pair tended to be more productive. Another conclusion made is that organizations with a high degree of personnel stability will be more productive because their members will not have to continuously learn new behavioral responses to accommodate new group members.

Gross, working with members of the United States Air

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[49] Edwin E. Ghiselli and Thomas M. Lodahl, "Patterns of Managerial Traits and Group Effectiveness," The Journal of Abnormal and Social Psychology, 57:61-66, 1958.

Force, studied symbiosis and consensus as integrative factors in small groups.[50] A consensual group, as defined here, was one in which all the members exhibited similar characteristics. In a symbiotic group the members display different characteristics. They asked the airmen to identify those people whose company they most preferred under a variety of different conditions. The evidence indicated that consensual groups were only moderately well integrated rather than highly or poorly integrated.

> Symbiotic groups tended to be composed of men of dissimilar or contrasting characteristics. This was found to be especially likely if the characteristics were related to adjustment to the job or to living or recreational conditions on the air site.[51]

Therefore, a single man would be friendly with a married man and his family, thereby providing him with a link to family life and home.

> The formation of consensual groups was especially likely when the characteristics were related to adjustment to the Air Force as a whole and to its group goals.[52]

A likely symbiotic relationship would involve an airman with complaints about the Air Force who turned for help to another airman who had previously solved similar problems. In conclusion, the author stated that both consensus and symbiosis may act as cohesive elements, but symbiosis seemed to be most effective as a binding agent.

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[50] Edward Gross, "Symbiosis and Consensus As Integrative Factors In Small Groups," American Sociological Review, 21 No.2:174-179, April, 1956.

[51] Ibid.

[52] Ibid.

Another researcher advanced and tested the following theory:

> . . .that different combinations of dominant and/or submissive individuals achieve more or less successfully according to the pair-combination as well as the conditions of assignment of dominant or submissive roles, and that it is possible to predict differential success among these permutations according to hypotheses derived from personality theory.[53]

In line with the hypothesis stated above, persons in a state of anxiety would be unable to function effectively under certain conditions. The inquiry involved students who had previously been rated with regard to the degree of dominance or submissiveness each manifested through behavior. The students were then paired, and each pair was requested to operate two mechanical trains over the same tracks simultaneously. Each train was operated by one member of the pair, and one train was always assigned the right of way on the tracks. Achievement records maintained during the experiment tend to validate the hypothesis on which the study was based. When a dominant individual and a submissive one worked together, and if the dominant person had the controlling position (i.e., the right of way on the tracks), highest achievement was recorded. The least productive group was the same combination with the roles reversed.

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[53] William T. Smelser, "Dominance As A Factor in Achievement and Perception In Cooperative Problem-Solving Interactions," The Journal of Abnormal and Social Psychology, 62 No.3:535-542, May, 1961.

Executive Professional Leadership. The concept of Executive Professional Leadership was formally defined by Gross as "the efforts of an executive of a professionally staffed organization to conform to a definition of his role that stresses his obligation to improve the quality of staff performance."[54] To measure EPL, Gross and his associates utilized twelve statements about principals behavior which are descriptive of efforts to conform to an EPL definition of their roles (The statements are listed in Chapter III, page 62. It is important to note that all EPL scores are relative in nature; that is, a principal with an EPL score of "3" is relatively higher than a principal with a score of "2". The scores only have meaning as they are seen in relation to one another. The answers given by the teachers to each question were assigned numerical values ranging from one to six, and these values were averaged to obtain a single EPL score for each teacher.

The authors pointed out[55] that EPL is a resultant of administrative behavior, and that principals can make adjustments in their behavior if they felt that such changes would enhance their image in the teachers' eyes.

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[54] Neal Gross and Robert E. Herriott, Staff Leadership In Public Schools: A Sociological Inquiry, (New York: John Wiley and Sons, Inc., 1965), p. 22.

[55] All information regarding EPL and related teacher-administrative factors can be found in Chapter 7 of Gross and Herriott's Staff Leadership In the Public Schools: A Sociological Inquiry.

In the initial hypothesis, the authors felt that those principals who asked their teachers for cooperation in making decisions pertaining to the schools would have higher EPL's than those who did not, since they were voluntarily relinquishing part of their own authority. The teachers responded to four statements which represented different areas of staff-involvement (The statements are listed in Chapter III, page 64). When the scores derived from each of these statements were cross-tabulated with the principal's EPL scores, they were all found to be significantly related (at the .001 level). The evidence was accepted as supporting the original premise.

The hypothesis was then presented that when the relationship between teachers and principals was perceived (by the teachers) to be an egalitarian one, the principal's EPL scores would be higher than if this were not the case. Five statements were asked of teachers and the scores obtained were averaged to obtain an average index of the type of relationship existing between a principal and his teachers (The statements are listed in Chapter III, page 64). Again, these scores were cross-tabulated with principals' EPL scores and the evidence was supportive of the hypothesis at the two per cent level.

The assumption was made that teachers, because of their numerous contacts with children, need associations with adults during which they can express themselves freely and feel they are being understood. This being the case, the theory was advanced that when principals met these needs, their EPL scores would be higher. Teachers' responses to six statements were averaged to obtain a measure of principals social support of teachers (The statements are listed in Chapter III page 66), and after cross-tabulation of these scores it was found that the hypothesis was supported by the data (at the .001 level).

Scores from six statements were averaged to obtain a Perceived Managerial Support of Teachers score (The statements are listed in Chapter III, page 65). It was anticipated that the greater the managerial support a principal offered his teachers, the greater his EPL score would be. When the results were cross-tabulated, they supported the hypothesis (at the .001 level).

The last type of teacher-administrator relationship studied was Perceived Support of the Teachers' Authority. The assumption was made that the greater the principal's support of his teachers in cases of teacher-pupil conflict, the greater his EPL score would be. Values derived from the statements were averaged to obtain a single score, and these scores were then cross-tabulated with the principals' EPL scores. (The statements are listed in Chapter III, page 63). Significant results (at the .001 level) were again found to support the hypothesis.

EPL is, essentially, a measure of the extent to which the principal displays those behavioral patterns which teachers perceive as desirable for those in the principal's role.

Doyle[56] found that teachers' and administrators' definitions of the teacher's role were more similar than such delineations on the parts of school board members and parents. Special note was made of the fact that both teachers and administrators tended to view the teacher's role in terms of traditional orientations (although both may have had different reasons for defining it in a similar manner).[57] The research reported indicates that teachers have relatively accurate perceptions of the expectations of administrators.[58] Another finding[59] was that such factors as age, years of teaching, number of school systems in which the teacher had taught, and the expected number of future years of teaching bore little relationship to the kinds of role expectations which an individual would prescribe for members of roles other than his own.

When the scope of the social system under consideration is enlarged, the terms in which it discussed became more general because fewer of the situational elements found in smaller systems are common to the larger ones.[60] As the size of the social system being analyzed decreases, it becomes possible to discuss minute elements such as specific behavioral patterns.

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[56] Louis Andrew Doyle, _A Study of the Expectations Which Elementary Teachers, School Administrators, Board Members and Parents Have of the Elementary Teachers' Role_, Unpublished Doctoral Dissertation, Michigan State University, 1956.

[57] _Ibid._, pp. 77-90.

[58] _Ibid._, p. 99.

[59] _Ibid._, pp. 67-71.

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[60] Neal Gross, Ward S. Mason, and Andrew W. McEarchern, Explorations In Role Analysis: Studies of the Superintendency Role (New York: John Wiley and Sons, Inc., 1958), p. 56.

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CHAPTER III

METHODOLOGY

Introduction. This chapter includes a complete statement of the methodology utilized in the study, but begins with a description of the community, the teachers who took part in the study, and the school system. An understanding of the nature of these elements is necessary if the study is to be viewed within a comprehensive social setting, and it enables the reader to better perceive the kinds of relationships existing between and among the various segments of the system.

The community. The city from which the participants were drawn is in the western part of Michigan and will henceforth be referred to as Urban City. The population of the city is approximately 180,000, and it is much like other urban districts throughout the country which have downtown shopping areas, older, run-down housing which surrounds the downtown area and the industrial area, and new neighborhoods encircling the older ones. The newer residential areas are composed largely of middle and upper class whites.

An increasing percentage of Negroes also resides in the city. As in many other cities with similar characteristics, the vast majority of Negroes currently residing in the city live in the older areas surrounding the downtown shopping center and around the industrial areas.

There are over twenty-five manufacturing plants in the city which employ over three hundred fifty people each, and over eight hundred plants and factories currently operating.

Within the city there are numerous cultural opportunities. Among them are two degree-granting colleges and a junior college. Extensions of the larger state universities are also to be found. A museum, library, and symphony orchestra are available.

The participants. Every teacher whose professional responsibilities included teaching in a classroom setting at least fifty per cent of the time was approached and asked to participate in the study. Six hundred sixty-six elementary teachers and the principals of fifty-one elementary schools were initially approached. At the same time, four hundred seventy-six secondary teachers and eleven secondary principals were asked to cooperate.

Of the sixty-three schools in the system, only one elementary school was not involved in the study. This was due to the fact that a new principal had assumed administrative responsibility for the school shortly before the study was begun, and under those conditions it would have been difficult, it not impossible, to obtain fair ratings of the teachers and the principal.

Of the six hundred sixty-six elementary teachers approached, four hundred five completed the Edwards Personal Preference Schedule and the Teacher Section: The National Principalship Study. (See Appendix B for samples of these forms). This constituted 64.41 percent of the elementary universe. Within the elementary sample three hundred sixty-nine were female (91.11 per cent) and thirty-six were male (8.89 per cent). Virtually all the males in the elementary sample taught in the upper elementary grades (i.e., grades four, five and six).

Forty-four elementary principals completed both the Edwards Personal Preference Schedule and the Administrative Preference Form, the two forms from which the principals' information was gathered (See Appendix B for sample of the Administrative Preference Form.). Within the sample of elementary principals thirty-three were female and eleven were male.

Two hundred fifty-two (52.73 per cent) of the total four hundred seventy-six secondary teachers completed both the Edwards Personal Preference Schedule and the Teacher Section: The National Principalship Study. Of those who returned all the information one hundred thirty-three were male and one hundred nineteen were female.

With regard to the secondary principals, all eleven completed both forms given them. Ten of the secondary principals were male and one was female.

Thus, six hundred fifty-seven (57.53 per cent) of the possible eleven hundred forty-two teachers completed and returned all the materials given them.

A comparison of participants and non-participants. Comparative information regarding four characteristics of those who did or did not return the requested data is presented at this time. The four factors are as follows: 1) age, 2) years of teaching, 3) degrees attained, 4) sex.

To compare those who did and did not return the questionnaires, comparative information was obtained for twenty-five elementary teachers who did return the materials; identical data were collected for twenty-five elementary teachers who did not return the materials. Similar data were gathered for nineteen secondary teachers who did return the information, and for twenty-eight secondary teachers who did not return the instruments.

1. AGE - The elementary teachers who did return the completed instruments averaged 39.24 years old and those who did not return the data averaged 40.48 years old. In terms of average age the elementary teachers can be said to be quite similar (the difference being only 1.24 years).

Table 1 A comparison of participants and non-participants with regard to age.

	Average Age of Participants	Average Age of Non-Participants
Elementary Teachers	39.24	40.48
Secondary Teachers	39.58	33.57

The secondary teachers who returned the completed information averaged 39.58 years old and those who did not averaged 33.57 years old. Although both groups were in the thirty to forty year old age bracket, those who chose to participate were older than the rest by 6.01 years.

2. YEARS TEACHING - Elementary teachers who did return the information averaged 8.60 years teaching in Urban City and 13.28 years total teaching, as opposed to an average of 8.20 years teaching in Urban City and 10.96 years total teaching for those who did not return the data. As can be determined by scanning the data presented in Table 2, those who participated in the study were quite similar to those who did not with regard to years of teaching in Urban City, the participating group having taught in the school system only .40 of a year longer than the non-participating group.

Table 2 A comparison of participants and non-participants with regard to years of teaching.

	PARTICIPANTS		NON-PARTICIPANTS	
	Average Years Teaching in Urban City	Total Average Years of Teaching	Average Years Teaching in Urban City	Total Average Years of Teaching
Elementary Teachers	8.60	13.28	8.20	10.96
Secondary Teachers	7.73	11.47	8.60	9.92

For total years of teaching, the participating teachers had taught 2.32 years longer than those not participating. Even so, both groups averaged more than ten and less than fifteen years of teaching experience, and they were, on that basis, considered similar.

Secondary teachers who returned the requested data averaged 7.73 years of teaching in the school system and a total of 11.47 years experience. Those who did not return the data averaged 9.92 years of teaching in Urban City and 10.96 years of total teaching experience.

Thus, as was true for the elementary teachers, the secondary teachers were very similar with regard to years of teaching in Urban City (the non-participants averaging .51 years more experience), but a greater differential existed (the participants averaging 1.55 more years teaching experience) with regard to total years teaching.

3. ACADEMIC DEGREES - The elementary teachers who did return the questionnaires were similar to those who did not with regard to level of education attained. In each group of elementary teachers only one teacher (four per cent of each set) had only a certificate which permitted him to teach in the public schools. The participating teacher with a special certificate had ten years teaching experience and the non-participating teacher with the same certificate had twenty-six years experience. Twenty-two teachers (eighty-eight per cent) of the non-participants had Bachelor of Arts degrees as opposed to seventeen (sixty-eight per cent) of those who did

Table 3 A comparison of participating and non-participating teachers with regard to academic degrees attained.

	PARTICIPANTS						NON-PARTICIPANTS					
	Certificate		B.A.		M.A.		Certificate		B.A.		M.A.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Elementary Teachers	1	4.00	17	68.00	7	28.00	1	4.00	22	88.00	2	8.00
Secondary Teachers			14	73.68	5	26.32			20	71.40	8	28.00

return the data. At the same time, only two of the non-participants (eight per cent) had Master of Arts degrees while seven from the participating group (twenty-eight per cent) had the advanced degree.

The secondary teachers from the participating and non-participating groups were very similar with regard to degrees attained. Of those who returned the data, 73.68 per cent (fourteen teachers) had Bachelor of Arts degrees and 26.32 per cent (five teachers) had Master of Arts degrees. Within the group of non-participants, 71.40 per cent (twenty teachers) had Bachelor of Arts degrees and 28.60 per cent (eight teachers) had Masters of Arts degrees.

While more elementary non-participants had Bachelor of Arts degrees than the participating group, the former group had less teachers with Masters of Arts degrees. For both groups the trends were very similar; a very small percentage having only teaching certificates, the bulk of both having Bachelor's degrees, and a smaller percentage of each group having Master's degrees.

On a percentage basis, the secondary teachers in both groups were extremely similar regarding academic degrees attained.

4. SEX - Elementary teachers in both groups were highly alike with regard to sex. The participating group was composed of eight per cent (two teachers) males and ninety-two per cent females (twenty-three teachers). The non-participants included four per cent males (one teacher) and

Table 4 A comparison of participating and non-participating teachers with regard to sex.

	PARTICIPANTS				NON-PARTICIPANTS			
	Male		Female		Male		Female	
	No.	%	No.	%	No.	%	No.	%
Elementary Teachers	2	8.00	23	92.00	1	4.00	24	96.00
Secondary Teachers	11	57.90	8	42.10	20	71.40	8	28.60

ninety-six per cent females (twenty-four teachers).

For the secondary teachers, similar trends were apparent for both groups, but the percentages were not quite so similar. The non-participants were comprised of 71.40 per cent (twenty teachers) males and 28.60 per cent (eight teachers) females, while the participants included 57.90 per cent (eleven teachers) males and 42.10 per cent (eight teachers) females.

Although the participating secondary group had a higher percentage of male teachers, the trend for both groups was toward a predominance of males. Both groups of elementary teachers were very much alike.

With regard to the four factors by which those who participated in the study were compared with those who did not participate, both groups appeared to be quite similar. Elementary teachers from both groups were very much alike as far as age was concerned, but those secondary teachers who participated were 6.01 years older than those who did not. The average ages of all participants and non-participants were between thirty-three and forty-one years old. Those teachers who were participants and those that were not were generally alike with regard to number of years teaching. The academic degrees attained by elementary and secondary participants were proportionally quite similar to those who did not participate with one exception; a higher percentage of elementary participants had Master's degrees than was true for the non-participants. The groups were also very similar in terms of the number of males and females involved, again with one exception; within the group of secondary participants there was a higher percentage of females than in the non-participant group, but for both groups over fifty per cent of those involved were female.

School size. The size of the schools, in terms of number of teachers, varies considerably in Urban City. With regard to the elementary school, size ranges from one which has three teachers and a teaching principal to another with twenty-five teachers and a full-time principal.

Table 5 Number and percentages of all elementary schools with given number of teachers*

Number of Teachers	Number of Schools	Percentage of Schools	Cumulative Percentage of Schools
1-9	14	26.92	26.92
10-14	16	30.77	57.92
15-19	17	32.69	90.38
10-25	5	9.62	100.00
	52	100.00	

*Only teachers whose professional responsibilities involved teaching half-time or more were included in the above chart. Therefore, all non-teaching specialists and administrators were excluded.

Urban City, in general, exhibits a trend toward the maintenance of small elementary units, each of which services the neighborhood surrounding it.

Urban City has eleven secondary schools. One is comprised of seventh and eighth grades in a building that houses a K-8 elementary school. Within this physical setting, the K-6 and 7-8 programs each have separate principals.

There are five junior high schools which include grades seven through nine. Each of these is physically separate from the elementary schools which act as their feeder schools.

Also to be found are four secondary schools containing grades seven through twelve. In each of these schools one principal serves as administrative head for the combined secondary school.

There is one secondary school that houses only grades ten through twelve. Like the others, this school has a single principal who acts as administrative officer.

Information collection. Initially, since information was to be gathered from both teachers and principals, stamped, pre-addressed envelopes with questionnaires enclosed were packaged for both groups.

Three items were enclosed in the teachers' envelopes. The first was a cover letter which described the nature of the study and asked the teachers to cooperate by completing the enclosed instruments. (See Appendix A for copy of this letter.). The second item was the Edwards Personal Preference

Schedule, the instrument from which the personality patterns were derived. The third item was the Teacher Section: The National Principalship Study, from which the Executive Professional Leadership Score and the teacher-administrator relationship scores were derived. Completion of these instruments took the teachers between one and two hours.

A cover letter was also included in the principals' envelopes (See Appendix A for copy of this letter.). Although directed to the principals, it was similar in content to the letter given the teachers. As was true with the teachers' packets, an Edwards Personal Preference Schedule was included in the principals' envelopes. The third item in the principals' envelopes was the Administrative Preference Form, an instrument utilized to determine the quality of interpersonal relationships existing between principals and selected teachers on their staffs. It took the principals approximately one hour and fifteen minutes to complete the materials.

All of the envelopes were coded so that the individual returning (or not returning) the materials could be identified by name and by school. The envelopes were coded to facilitate follow-up if not returned.

Arrangements were made with the principals of each school for the person conducting the study to meet with the entire teaching staff to explain the study and at the same time make a personal effort to elicit their aid in carrying out the project. During the meeting with teachers the following points were made:

1. The principals were also participating in the study and the cooperation of both principals and teachers was needed;
2. The study was not undertaken at the request of the school administration, but at the request of the researcher;
3. No attempt would be made to evaluate the teaching ability of any individual;
4. That the study was an attempt to find out more about the relationship between teachers and principals, and to obtain a better understanding of some factors influencing that relationship;
5. Both teachers and principals who participated in the study were guaranteed anonymity. Neither the individuals nor the schools from which they came would be identifiable;
6. An explanation of the coding system was volunteered so that all teachers knew how it was to operate.

After this presentation, all questions raised by the teachers were answered. These meetings lasted from half an hour to an hour in length. In this manner a meeting was held in each of the sixty-two schools involved in the study.

Individual meetings with each of the elementary principals also took place. These were conducted before the meetings with their staffs. At this time the study was explained to them and any questions raised were answered.

All the envelopes given to teachers and principals were pre-addressed and stamped so that, upon completion, they could be returned directly to the researcher through the United States mail without passing through the hands of any other member of the school system.

There were two reasons that the "personal visitation" approach was utilized so extensively in this study; the first is that completion of all the materials involved a considerable amount of teachers' and principals' time; the second is that the nature of the study raised many fears on the parts of teachers and principals.

Since these materials were to be completed during the individual's free time (meaning non-school time), and because participation was purely voluntary, it was felt that the "personal" approach was necessary if an adequate number of returns was to be forthcoming. Had they been mailed to the participants with only a letter of explanation, it was anticipated that most would have merely discarded the materials after realizing the amount of time involved.

As to the second point, in a variety of ways school systems in Michigan are passing through a transitionary state. Recently the state legislature passed a law establishing the machinery for teachers' organization-school board negotiations, and requiring the school systems to participate in such negotiations in good faith. As a result, in Urban City, as in other cities, there has been conflict among teachers' organizations seeking bargaining rights, and also between the organizations and the school board regarding the conditions under which the negotiations are to take place. Added to this is the general distrust of administrators that teachers hold and which tends to increase with the size of the school system and the lengthening of lines of communication. To initiate a study of teacher-administrator relationships in the midst of this atmosphere without having had the opportunity to thorougly discuss it with the participants would most certainly have resulted in a poor response.

Since the secondary principals comprised a smaller group, there being only eleven of them, one meeting was held at which the study was discussed, questions were answered, and all the materials were completed by them at that time.

Finally, one week after each school visitation, a letter was sent to every individual who had not returned the materials. This letter was intended as a reminder for those who intended to participate but who had forgotten to do so for any of a number of reasons. (See Appendix A for copy of this letter.).

Nature of the instruments. Three instruments were utilized in this study and each will be described briefly at this time.

a) The Edwards Personal Preference Schedule --The information which follows is a digest of material taken from the Manual for the Edwards Personal Preference Schedule[61] and which, in general terms, presents a more complete picture of the instrument. The Manual contains a relatively complete bibliography of the research conducted with and on the Edwards Personal Preference Schedule, and those sources will not be reiterated here since many are referred to in Chapter II and others are not relevant to the present study. Some, however, are relevant to the development and understanding of the instrument, but not directly to this study.

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[61] Edwards, loc. cit.

The Edwards Personal Preference Schedule is a test which purports to measure the following fifteen personality variables: Achievement, Deference, Order, Exhibition, Autonomy, Affiliation, Intraception, Succorance, Dominance, Abasement, Nurturance, Change, Endurance, Heterosexuality, and Aggression. These variables were selected from a list of manifest needs developed by H. A. Murry and others. Abbreviated definitions of the fifteen needs are presented here. Complete definitions can be found in the test Manual.

1. Achievement - The need to do one's best and to be successful with tasks that require skill and effort.
2. Deference - The need to follow the lead of others and to praise others.
3. Order - The need to have things neat and organized; to like things orderly.
4. Exhibition - The need to be the center of attention.
5. Autonomy - The need to be independent in thought and action.
6. Affiliation - The need to be with and do things with others.

7. Intraception - The need to be introspective with respect to the feelings and motives of oneself and others.
8. Succorance - The need to have others provide encouragement and help.
9. Dominance - The need to be a leader or a person who controls the course of events.
10. Abasement - The need to feel personal guilt for the actions of oneself and others.
11. Nurturance - The need to provide encouragement and assistance to others.
12. Change - The need to experiment and be involved in new and different activities.
13. Endurance - The need to work hard and keep at a task until it is completed.
14. Heterosexuality - The need to be with and enjoy the company of members of the opposite sex.
15. Aggression - The need to attack and criticize the thought and actions of others.

The test construction was based on the premise that these are normal personality variables; that any pattern or score derived from an individual's answers to the items on the test is a normal pattern or score, and that differences in scores between people can be accounted for by the fact that all people are different from one another.

The test offers the responder two choices ("A" or "B") to each pair of questions, and it is an ipsitive test. Thus, when an answer is given to an item it represents a forced choice and the number of possible answers to some other variable is decreased.

Norms are included in the Manual for two groups. The first is a group of college men and women. The second group is a general adult sample, also having separate norms for men and women.

The test was designed in such a manner that the two choices in each item were matched for social desirability to prevent the respondent from selecting the more socially desirable answer even if it was not his true choice.

The test yields individual scores for each of the variables, and the total set of scores, when considered together, is termed a "need profile" or "personality pattern."

b) The Teacher Section: The National Principalship Study--This instrument was originally designed for use in the National Principalship Study, a research project conceived of by Neal Gross in 1958 and funded by the United States Office of Education through its Cooperative Research Program in 1959.

The instrument became the focal point for a study by Gross and Herriott,[62] and it was in this investigation that Gross defined the concept of Executive Professional Leadership (EPL) and the associated teacher-administrator relationships which are also dealt with in this study. The teacher-administrator relationships with which he dealt are:

1) Perceived Support of Teachers' Authority,
2) Perceived Level of Egalitarian Relationships,
3) Perceived Level of Staff Involvement,
4) Perceived Managerial Support of Teachers,

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[62] Gross and Herriott, loc. cit.

5) Perceived Social Support of Teachers.

Executive Professional Leadership is here defined as the extent to which the principals conform to the role which the teachers feel they ought to fulfill. It was derived by asking each teacher to evaluate his principal's behavior with regard to twelve statements, and then assigning a numerical value to each answer. The more positive the answer given, the greater the numerical value. On this basis the scores were assigned values ranging from one to six. The twelve numerical values obtained for each teacher were averaged and the resulting score was called the Executive Professional Leadership Score (EPL).

The twelve statements are as follows:

1. Gives teachers the feeling that their work is an "important" activity.
2. Gets teachers to upgrade their performance standards in their classrooms.
3. Gives teachers the feeling that they can make significant contributions to improving the classroom performance of their students.
4. Makes teachers' meetings a valuable educational activity.
5. Has constructive suggestions to offer teachers in dealing with their major problems.
6. Takes a strong interest in my professional development.
7. Treats teachers as professional workers.
8. Considers "what is best for all the children" in his decision affecting educational programs.

9. Maximizes the different skills found in his faculty.
10. Brings to the attention of teachers educational literature that is of value to them in their jobs.
11. Helps teachers to understand the sources of important problems they are facing.
12. Displays a strong interest in improving the quality of the educational program.

A factor which Gross' study indicated was closely related to EPL was the extent to which the teachers perceived their principals as being supportive of their authority. Each teacher rated his principal's behavior on four statements, and the scoring was similar to that used in computing EPL except that the range of numerical values was from one to five. The responses to the following statements were utilized to obtain the Perceived Support of Teacher Authority Score.

1. Support a teacher's discipline decision that the principal believes is grossly unfair to the child.
2. Insist that students obey teachers' instructions first, and complain about them later.
3. Side with the teacher when a student complains about the teacher's behavior, even if the student's complaint is legitimate.
4. Back the teacher in any public controversy between teacher and student.

Perceived Level of Egalitarian Relationships was a second factor which Gross found related to EPL. This score represents the extent to which each teacher thinks the principal promotes an atmosphere of equality between himself and his teachers. Scores for each teacher were derived in the same manner as was done for EPL, again with the exception that the numerical values ranged from one to five. The statements relating to this score are as follows:

1. Encourage all teachers to call him by his first name, when the students are not present.
2. Make it a practice to have lunch frequently with the teachers in his school.
3. Discourage teachers from treating him as "one of the gang" at informal gatherings of teachers.
4. Avoid first-name relationships with his teachers.
5. Insist, tactfully, that teachers show due respect for his position as principal.

A third related factor was Perceived Level of Staff Involvement. This is viewed as the degree to which the teachers perceive themselves as being involved in the decision-making processes of the school. The scoring procedures were similar to those utilized for EPL except for the fact that the numerical range of assigned values was one to five. The statements from which this score was derived are presented here.

1. Share with teachers the responsibility for determining the minimum level of satisfactory student performance of your school.
2. Share with teachers the responsibility for evaluating how good a job the school is doing.

3. Share with teachers the responsibility for determining how teachers should be supervised.
4. Share with teachers the responsibility for developing a policy for handling student discipline problems.

Perceived Level of Managerial Support is the fourth type of relationship considered in this study. In essence, this factor represents the extent to which teachers see their principals as providing and facilitating adequate managerial services which are necessarily supportive of the teachers' position. As was true for EPL, the assigned range of numerical values for this score ranged from one to six. The six statements from which this score is derived can be found below.

1. Procrastinates in his decision making.
2. Displays inconsistency in his decisions.
3. Has the relevant facts before making important decisions.
4. Requires teachers to engage in unnecessary paper work.
5. Makes a teacher's life difficult because of his administrative ineptitude.
6. Runs meetings and conferences in a disorganized fashion.

The last of the teacher-administrator relationships considered is the Perceived Level of Social Support; the degree to which the teachers perceive their principals as being individuals who understand and support their positions.

The assigned numerical values for the statements listed below range from one to six.

1. Puts you at ease when you talk with him.
2. Rubs people the wrong way.
3. Develops a real interest in your welfare.
4. Makes those who work with him feel inferior to him.
5. Displays integrity in his behavior.

In general, the questionnaire seeks two kinds of information about the many facets of the school setting in which the teacher works. Answers are sought to questions about the school principal, the atmosphere of the school, and the teachers and students in the school. The rest of the questionnaire is devoted to gathering information about the respondent.

c) The Administrative Preference Form--This is a one page form on which each principal was asked to list the quarter of his staff with whom he would most like to deal and the quarter of his staff with whom he would least like to deal in school-related situations involving various interpersonal relationships.

Conversion of the hypotheses. In order to test the hypotheses presented earlier the Null Hypothesis was adopted, enabling the investigator to detect differences through the search for similarities.

As a result of the conversion the hypotheses were stated as follows:

1. No differences will be observed in the need patterns of teachers and administrators as measured by the Edwards Personal Preference Schedule.

$$N_t = N_p \cdot$$

In the above equation, N_t equals the needs of teachers and N_p represents the needs of principals.

2. No differences will be observed between male and female need patterns.

$$N_m = N_f \cdot$$

Here, N_m represents the needs of males and N_f represents the needs of females.

3. Teachers who express affinity for their principals will have need patterns that are no different from those of their principals, and teachers who express disliking for their principals will have need patterns that are no different from their principals.

This similarity will hold true with regard to both intensity and kind of needs. Similarity of need patterns with respect to intensity of needs is expressed in the equation which follows.

$$N_t = N_p$$

when N_t equals the intensity of need patterns manifested by those teachers who express affinity for their principals and by those teachers who express disliking for their principals; N_p represents the intensity of the need patterns manifested by the principals who were the objects of those attitudinal expressions.

Similarity of needs with respect to kind is represented as follows.

$$N_{tx} = N_{px},\ N_{ty} = N_{py},\ N_{tz} = N_{pz},\ \ldots$$

when N_{tx}, N_{ty}, N_{tz}, . . .represent the various needs of teachers who like their principals, and also the various needs of teachers who dislike their principals; and when N_{px}, N_{py}, N_{pz}, . . .represent the same needs of those principals who are liked and disliked.

4. Principals who express a preference to work with certain teachers will have need patterns no different from the need patterns of those teachers, and principals who express an aversion to work with certain teachers will also have need patterns no different from the need patterns of those teachers.

This similarity will hold true with regard to both intensity and kind of needs. Similarity of need patterns with respect to intensity of needs is expressed in the equation which follows.

$$N_p = N_t$$

when N_p equals the intensity of the need patterns manifested by those principals who express a preference or aversion to work with certain teachers; N_t represents the intensity of the need patterns manifested by the teachers who were the objects of those attitudinal expressions.

Similarity of needs with respect to kind is represented as follows.

$$N_{px} = N_{tx}, \quad N_{py} = N_{ty}, \quad N_{pz} = N_{tz}, \ldots .$$

when N_{px}, N_{py}, N_{pz}, ...represent the various needs of principals who prefer to work with certain teachers, and also the various needs of principals who express aversion to work with certain teachers; and when N_{tx}, N_{ty}, N_{tz}, ... represent the same needs of those teachers toward whom preference and aversion are expressed.

5. No direct relationship will exist between the Executive Professional Leadership score and the teacher-administrator relationship scores which are considered concommitants of EPL (i.e., Perceived Support of Teacher Authority, Perceived Level of Egalitarian Relationships, Perceived Managerial Support of Teachers, Perceived Social Support of Teachers, Perceived Staff Involvement.)

$$EPL \neq f \; TAR_f$$

when EPL equals the Executive Professional Leadership Score and TAR_f represents the teacher-administrator relationship scores.

Treatment of the data. The first and second hypotheses, which sought to determine existing differences in personality traits between males and females, and also between teachers and administrators were examined by applying t-tests to find the extent of the differences between means for each of the fifteen variables in the Edwards Personal Preference Schedule. Two-tailed tests of significance were used since no hypothesis regarding direction of need had been posited.

In addition to investigating the gross differences between the larger groups, further information was sought regarding the smaller elements which comprise these groups. The relationships between male and female elementary teachers, male and female secondary teachers, male elementary and male secondary teachers, female elementary and female secondary teachers, male elementary principals and female elementary principals, and male elementary and male secondary principals were investigated.

Hypotheses 3 and 4 were tested in two separate and distinct ways. By testing these hypotheses it was anticipated that the Complementary-Needs Hypothesis, as applied to teacher-principal relationships, could be substantiated.

In dealing with Hypothesis 3, the differing levels of intensity of needs were investigated through the use of deviation scores. The data cards for the teachers who expressed affinity for their principals and those who expressed disliking toward their principals were separated from the rest; then a deviation score was derived for each teacher on each of the fifteen variables. The deviation score represented the difference between that teacher's score on the given variable and the score obtained by his principal for that same need without regard to sign. For each of the fifteen needs the deviation scores of all the preferred teachers were totalled and a mean deviation score was derived. For the Complementary-Needs Hypothesis to be proven valid, the mean deviation score of each need for the teachers who expressed affinity for their principals should be significantly greater (representing further distance) than the mean deviation score of the teachers who expressed disliking toward their principals.

Although the data obtained from the study of the interaction of individual needs was deemed important, acceptance of the total Hypothesis requires substantiation on more than single need profiles. It was decided that the Hypothesis would be considered valid with respect to intensity if significant differences in the predicted direction were found for eleven or more variables; that the evidence would be regarded as inconclusive if only six to ten significant differences in the predicted direction were found; and that the occurrence of less than six significant differences would result in rejection of the hypothesis.

For Hypothesis 4, the same procedure was followed, but the two categories for which deviation scores were derived were the teachers with whom the principals most preferred to work and those with whom they least preferred to work. These categories took the place of those teachers who expressed affinity for their principals and those who expressed disliking for their principals.

To investigate the validity of the Complementary-Needs Hypothesis as it relates to kinds of needs, a somewhat different procedure was followed. The following describes the procedure for Hypothesis 3.

Fifty-five principals completed the Edwards Personal Preference Schedule. From this group the twenty who obtained the highest scores on each of ten variables and the twenty who obtained the lowest scores on each of the same ten variables were separated. The variables were Deference, Dominance, Aggression, Order, Change, Autonomy, Affiliation, Succorance, Nurturance, and Abasement.

Using these ten variables, twelve pairs of needs were listed, the two needs in each pair having been judged complementary to each other. The paired needs were as follows: Deference-Dominance, Dominance-Deference, Deference-Aggression, Aggression-Deference, Order-Change, Change-Order, Autonomy-Affiliation, Affiliation-Autonomy, Succorance-Nurturance, Nurturance-Succorance, Abasement-Aggression, Aggression-Abasement.

From each of the forty schools involved in the analysis of paired needs (the same schools from which the twenty high and twenty low principals for that need were derived) the data-cards for those teachers who expressed affinity toward their principals and those who expressed disliking toward their principals were selected.

For the twenty principals rated high on a given need it was assumed that those teachers who expressed affinity for them would have a complementary score on the paired need.

A "high" teachers score was one above the mean for all the teachers on that variable and a "low" score was one which fell below the mean for all the teachers on that variable.

A Chi Square analysis was applied to the data for each paired need combination to determine if the scores fell in the predicted direction more often than might be expected by chance. This same procedure was used for the twenty principals rated low for a given need. It was assumed that the teachers who expressed affinity toward their principals would generally have scores on the paired need which were complementary to those of the principals.

In Hypothesis 3 there were two Chi Square analyses for each paired need combination; one for the twenty principals rated high on a given need and one for the twenty principals rated low on a given need.

Significant differences on nine or more of the Chi Square analyses would be accepted as evidence validating the original premise. Less than four differences would be accepted as evidence that the hypothesis is not valid. Should the number of significant differences fall from five to eight (inclusive) it would be accepted as inconclusive evidence requiring further investigation.

For Hypothesis 4, the procedure for investigating the Complementary-Needs Hypothesis with regard to kinds of needs was the same except that the preferred and least preferred teacher categories took the place of the categories representing those teachers who expressed affinity toward their principals and those teachers who expressed dislike of their principals.

Hypothesis 5 was tested through the use of multiple correlation. Initially, EPL was held constant and the correlation dealt with the relationship of the five related teacher-administrator relationship factors to the EPL score. Then, those factors which contributed least to the multiple correlation were partialed out, facilitating understanding of the degree of influence each factor brought to bear on the EPL score.

Finally, the relationship between need patterns and a number of variables for which no hypotheses had been posited were investigated. These factors are as follows: 1) years of teaching, 2) age, 3) type of community background, 4) type of secondary education, 5) type of college attended, 6) whether they were full or part-time undergraduate students, 7) the extent to which each financed his own education, 8) degrees earned, 9) marital status, 10) whether or not the teaching profession was their first occupational choice, 11) teaching level 12) subject taught (for secondary teachers only).

CHAPTER IV

ANALYSIS OF THE DATA

Introduction. To facilitate the analysis of the data presented in this chapter, the hypotheses dealt with are those developed in Chapter III based on the Null Hypothesis. When t-tests were utilized, a two-tailed test of significance was applied to the data since none of the original hypotheses predicted direction of need scores.

The need patterns of teachers and principals. Only one study reviewed in Chapter II included a comparison of principals' and teachers' mean scores obtained from the Edwards Personal Preference Schedule.[63] In that study the data indicated that significant differences between the mean scores of the two groups did exist. It was, therefore, logical to once again inspect the scores of the two groups in order to determine whether or not the differences found in the earlier study were a product of a particular situation or an aspect of a more generalized case.

HYPOTHESIS 1 (Null Expression)

> No difference will be observed between the need patterns of teachers and administrators as measured by the Edwards Personal Preference Schedule.

$$N_t = N_p$$

when N_t equals the needs of teachers and N_p represents the needs of principals.

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[63] Kemp, loc. cit.

In Table 6 can be found the means for all fifteen needs of teachers and principals. Male and female principals from the elementary and secondary levels were grouped together as were male and female teachers from all levels of teaching. For thirteen of the fifteen variables there were no observed significant differences, but for variables Deference and Autonomy statistically significant differences were found (at the .05 and .002 levels respectively). Principals, as a total group, were thus found to have significantly greater need for Deference and less for Autonomy than the teachers.

A significant difference also appeared with regard to the mean Consistency scores, a measure of the extent to which the respondents answered the items regarding each of the variables in a consistent manner. In this case the principals' mean score was higher than the teachers' mean score. When compared to the norms set forth by Edwards,[64] the mean Consistency scores derived from the respondents in this study were extremely low. Edwards points out that, by chance alone, the consistency score should be at least 7.5; that the chances of obtaining a score of 11 or more would not occur by chance more than six times in a hundred. It should be noted at this time that there are numerous reasons for believing that the scores derived from the participants represent an accurate picture of their needs even though the Consistency score is

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[64] Edwards, op. cit., pp. 15-16.

Table 6 A comparison of means and standard deviations on the EPPS variables for principals (N=55) and teachers (N=657) in Urban City.

			Standard	Deviations	
Variable	Principals	Teachers	Principals	Teachers	P
Achievement	13.29	14.31	4.91	4.20	NS
Deference	15.21	14.14	3.28	4.20	.05
Order	13.49	12.83	4.42	4.97	NS
Exhibition	13.32	13.63	4.05	3.90	NS
Autonomy	11.21	12.76	3.48	4.01	.002
Affiliation	15.85	16.19	3.78	4.32	NS
Intraception	17.25	16.82	4.82	4.58	NS
Succorance	12.61	11.48	4.33	4.55	NS
Dominance	14.41	13.45	4.52	5.20	NS
Abasement	13.92	13.91	4.89	5.02	NS
Nurturance	15.96	15.45	4.67	4.63	NS
Change	25.72	16.57	4.86	4.51	NS
Endurance	14.63	14.69	3.99	5.01	NS
Heterosexuality	12.01	12.68	6.43	6.06	NS
Aggression	11.00	11.00	4.37	4.28	NS
Consistency	6.98	6.39	2.05	1.77	.05

a .05 = 1.960 b .02 = 2.326 c .01 = 2.576 d .002 = 3.090

lower than might have been anticipated. The reasons are as follows: 1) for both principals and teachers, participation in the study was voluntary; 2) a personal meeting was held with teachers and principals to explain the procedures and objectives of the study, and to answer their questions; 3) all participants in the study were guaranteed anonymity; 4) participants utilized their own time to complete the instruments; and 5) teachers were asked to return the materials uncompleted if they did not wish to take part in the study.

Another reason for believing that the participants' responses were accurate reflections of their needs is found in the standard deviations obtained for the Consistency scores. The standard deviations for both groups were relatively small, indicating that a tremendous proportion of the participants obtained similar scores, all of which were grouped around the mean. The principals' standard deviation for the Consistency score (2.05) was slightly larger than the one obtained from the total Consistency score of Edwards' College Sample (1.84) and the standard deviation obtained from the teachers' Consistency score (1.77) was smaller than any found in Edwards' College Sample or his General Adult Sample.[65]

When the raw scores of teachers and principals were compared with the total mean scores derived by Edwards for his College Sample, a number of differences were apparent.[66] The mean scores of teachers and principals on the variable Deference were considerably higher than that obtained by the College Sample. Educators also appeared to have greater need for Order and Endurance. On the other hand, the normative sample evidently had a greater need than educators for Autonomy, Dominance, and Heterosexuality. No marked differences were apparent with regard to the variables Achievement, Exhibition, Affiliation, Intraception, Succorance, Abasement, Nurturance, Change, and Aggression.

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[65] Edwards, op. cit., p. 10.

Kemp[67] administered the Edwards Personal Preference Schedule to teachers and administrators, and obtained mean scores on the fifteen variables for both groups. There was no indication in his study as to whether or not the two groups contained both males and females, but they were all apparently from secondary schools. When his principal sample was compared to the principals involved in this study, Kemp's sample seemed to have considerably higher raw scores on the variables Achievement, Dominance, and Endurance; they had considerably lower mean scores for Exhibition, Succorance, Abasement, Nurturance, and Change; little difference appeared with regard to Deference, Order, Autonomy, Affiliation, Intraception, Heterosexuality, and Aggression.

The teachers in Kemp's sample, when compared with those who participated in this study, had relatively higher mean raw scores with regard to the variables Order, Dominance, and Nurturance; considerably lower mean scores on the variables Exhibition, Affiliation, Change, and Aggression; and generally similar mean scores for Achievement, Endurance, and Heterosexuality.

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[66] Edwards, op. cit., p. 10.

[67] Kemp, loc. cit.

On the basis of the evidence gathered in this study with regard to the needs of teachers and principals, the Null Hypothesis could not be rejected for thirteen of the fifteen variables on which the two groups were compared. Significant differences were found for only two. This indicates that the need patterns of the two groups were very similar.

To further clarify the situation regarding the need patterns of teachers and administrators in general, data comparing the need patterns of male elementary and secondary principals, elementary and secondary teachers, male elementary and male secondary teachers, and female elementary and female secondary teachers were analyzed.

There are as many arguments for the proposition that the position of elementary principal is different from that of a secondary principal as there are for the diametrically opposite position. If such a divergence in role is existent, there is also a possibility that the different positions require different kinds of people. It is interesting to note that the data in Table 7 indicated no significant differences whatsoever between the need patterns of male elementary principals and male secondary principals. For all fifteen variables the mean scores were relatively similar. Had the samples been larger some of the differences might have been significant, but the small number of male elementary principals, coupled with the small number of secondary schools, precluded any such increase in the size of the groups.

There was little evidence in terms of need pattern differentials to indicate that the needs of elementary and secondary principals were different. Female elementary principals were not compared with female secondary principals because there was only one individual in the latter category and the resulting means and statistics would be of no value.

Since, in a number of ways, the tasks required of secondary teachers are different from those demanded of elementary teachers, the differences in need patterns of the two groups were investigated. A comparison of elementary and secondary teacher's mean scores on the fifteen variables obtained from the Edwards Personal Preference Schedule indicated that numerous differences in needs existed between the two groups. The data in Table 8 clearly denote the extent of these differences. On twelve of the fifteen variables significant differences appeared between the two groups. The mean scores of secondary teachers were significantly higher than those of elementary teachers on the variables Achievement, Autonomy, Dominance, Aggression (all at the .002 level), and Heterosexuality (at the .01 level); at the same time, the secondary teachers had

Table 7 A comparison of means attained on the EPPS variables by male elementary principals (N=11) and male secondary principals (N=10) in Urban City.

Variable	Male Elementary Principals	Male Secondary Principals	"t"	P
Achievement	16.50	13.80	1.422	NS
Deference	15.20	15.10	0.057	NS
Order	13.40	14.40	-0.500	NS
Exhibition	13.80	14.70	-0.496	NS
Autonomy	11.50	11.80	-0.204	NS
Affiliation	15.50	13.60	1.008	NS
Intraception	19.60	15.40	1.965	NS
Succorance	9.80	10.80	-0.511	NS
Dominance	14.20	16.50	-1.041	NS
Abasement	12.90	12.30	0.245	NS
Nurturance	15.70	14.60	0.491	NS
Change	14.60	14.60	0.000	NS
Endurance	14.10	12.60	0.846	NS
Heterosexuality	13.40	16.40	-1.138	NS
Aggression	9.80	13.40	-1.947	NS

a .05 = 2.093

Table 8 A comparison of means attained on the EPPS variables by elementary teachers (N=405) and secondary teachers (N=252) in Urban City.

Variable	Elementary Teachers	Secondary Teachers	"t"	P
Achievement	13.57	15.50	-5.905	.002
Deference	14.50	13.56	2.828	.01
Order	13.13	12.34	1.966	.05
Exhibition	13.49	13.86	-1.180	NS
Autonomy	12.37	13.39	-3.170	.002
Affiliation	17.09	14.75	6.784	.002
Intraception	17.19	16.24	2.543	.002
Succorance	11.96	10.71	3.363	.002
Dominance	12.25	15.37	-7.963	.002
Abasement	14.42	13.09	3.356	.002
Nurturance	16.11	14.39	4.666	.002
Change	16.75	16.27	1.317	NS
Endurance	14.62	14.80	-0.439	NS
Heterosexuality	12.18	13.48	-2.698	.01
Aggression	10.28	12.14	-5.483	.002

a .05 = 1.960 b .02 = 2.326 c .01 = 2.576 d .002 = 3.090

significantly lower need scores than the elementary teachers for variables Deference (at the .01 level), Order (at the .05 level), Affiliation, Intraception, Succorance, Abasement, and Nurturance (all at the .002 level). With regard to the variables Exhibition, Change, and Endurance there were no significant differences.

On the basis of the data presented, it can be concluded that evidence exists in support of the premise that the need patterns of elementary and secondary teachers are different.

Since in Table 8 it was shown that substantial differences existed when the need patterns of elementary and secondary teachers were compared, it was logical to assume that, when male elementary teachers were compared with male secondary teachers, there would continue to be sizable differences between the mean scores of the two groups.

The data in Table 9 indicate that, of the fifteen variables involved, a significant difference was found only for the variable Intraception on which male elementary teachers recorded a higher mean score (significant at the .05 level) than male secondary teachers. With regard to thirteen of the remaining variables male teachers from both groups were highly similar. For the variable Endurance the male secondary teachers obtained a raw score 1.66 points higher than that of male elementary teachers, but the differential was not statistically significant.

Contrary to expectations based on the total elementary teachers-secondary teachers comparison, very little

Table 9 A comparison of means attained on the EPPS variables by male elementary teachers (N=36) and male secondary teachers (N=133) in Urban City.

Variable	Male Elementary Teachers	Male Secondary Teachers	"t"	P
Achievement	16.19	15.73	0.532	NS
Deference	13.47	13.67	-0.265	NS
Order	11.91	12.46	-0.605	NS
Exhibition	14.72	13.81	1.027	NS
Autonomy	13.94	14.15	-0.322	NS
Affiliation	14.58	13.97	0.714	NS
Intraception	17.36	15.47	2.208	.05
Succorance	9.88	9.91	-0.036	NS
Dominance	16.77	16.64	0.138	NS
Abasement	12.91	12.35	0.545	NS
Nurturance	13.44	13.87	-0.475	NS
Change	15.75	15.63	0.165	NS
Endurance	13.88	15.54	-1.792	NS
Heterosexuality	13.36	13.67	-0.317	NS
Aggression	11.77	13.03	-1.519	NS

a .05 = 1.960 b .02 = 2.326

differential existed between need patterns of male elementary and secondary teachers.

In Table 10 data relative to the needs of female elementary teachers and female secondary teachers are presented. It is clearly observable that numerous statistical differences existed between the two groups. Such differences were evident for seven of the fifteen variables.

Female secondary teachers exhibited significantly greater mean scores for the variables Achievement, Affiliation, Dominance (all at the .002 level), and Aggression (at the .02 level); female elementary teachers had higher mean need scores on the variables Deference and Nurturance (at the .01 level), and Order (at the .05 level). No significant differences were found for the variables Exhibition, Autonomy, Intraception, Succorance, Abasement, Change, Endurance, and Heterosexuality.

The comparison of need patterns of female elementary and secondary teachers yielded results more in line with expectations. Numerous differences were found supporting the proposition that the two groups have differing need patterns.

Garrison and Scott[68] found that prospective female secondary teachers (college students) had significantly

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[68] Karl C. Garrison and Mary Hughie Scott, "A Comparison of the Personal Needs of College Students Preparing to Teach In Different Teaching Areas," Educational and Psychological Measurement, 21 No.4:955-964, 1961.

Table 10 A comparison of means attained on the EPPS variables by female elementary teachers (N=369) and female secondary teachers (N=119) in Urban City.

Variable	Female Elementary Teachers	Female Secondary Teachers	"t"	P
Achievement	13.31	15.23	-4.461	.002
Deference	14.60	13.44	2.611	.01
Order	13.25	12.20	1.993	.05
Exhibition	13.37	13.90	-1.272	NS
Autonomy	12.21	12.53	-0.753	NS
Affiliation	17.33	15.62	3.571	.002
Intraception	17.17	17.10	0.138	NS
Succorance	12.16	11.60	1.148	NS
Dominance	11.81	13.95	-4.376	.002
Abasement	14.57	13.91	1.231	NS
Nurturance	16.37	14.97	2.747	.01
Change	16.85	17.00	-0.312	NS
Endurance	14.69	13.98	1.271	NS
Heterosexuality	12.06	13.26	-1.853	NS
Aggression	10.14	11.15	-2.342	.02

a .05 = 1.960 b .02 = 2.326 c .01 = 2.576 d .002 = 3.090

higher mean scores on the variable Achievement than prospective female elementary teachers. This is in line with the data gathered in this study. Since their analyses of the data followed very different procedures than those utilized in this study, this in the only comparison that can be made at this time.

In retrospect, it was found that a comparison of mean scores attained on the Edwards Personal Preference Schedule by all principals and all teachers yielded very few significant differences. But, as these larger groups were broken down into smaller and more homogeneous groups, numerous differences were apparent. Male elementary principals' personality patterns were very similar to those of the male secondary principals, but numerous highly significant differences appeared when elementary teachers (as a group) were compared with secondary teachers. Indications were that many of these differences were attributable to the differing need patterns of female elementary and female secondary teachers; male elementary and secondary teachers tended to be quite similar in terms of personality patterns.

Male-female differences with regard to need patterns. Numerous studies conducted with the Edwards Personal Preference Schedule have demonstrated that significant differences between the mean scores obtained by males and females occur consistently. Because male-female differences, as measured by the Edwards Personal Preference Schedule, are extremely common, the decision to investigate the male-female differences in need patterns of educators was a logical step.

HYPOTHESIS 2 (Null Expression)

> No differences will be observed between the need patterns of males and females as measured by the Edwards Personal Preference Schedule.

$$N_m = N_f$$

when N_m represents the need patterns of males and N_f represents the need patterns of females.

A comparison of mean need scores achieved by male and female elementary principals is presented in Table 11. Significant differences were found for only two of the fifteen variables measured by the instrument. Male elementary principals were found to have a greater need for Achievement (significant at the .05 level) and female elementary teachers manifested a significantly greater need for Succorance (at the .002 level). On the basis of the data presented it can be stated that the Null Hypothesis can not be rejected for thirteen of the need variables.

Quite different results were obtained by Edwards[69] for both the College Sample and the General Adult Sample. Within the College Sample men had significantly larger scores than women (all at the .01 level) for the variables Achievement, Autonomy, Dominance, Heterosexuality, and Aggression. Women from the same samples had significantly higher means (all at the .01 level) for variables Deference, Affiliation,

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[69] Edwards, op. cit., p. 10.

Table 11 A comparison of means attained on the EPPS variables by male elementary principals (N=11) and female elementary principals (N=33) in Urban City.

Variable	Male Elementary Principals	Female Elementary Principals	"t"	P
Achievement	16.50	12.25	2.344	.05
Deference	15.20	15.58	-0.244	NS
Order	13.40	13.58	-0.104	NS
Exhibition	13.80	12.16	1.222	NS
Autonomy	11.50	11.03	0.379	NS
Affiliation	15.50	16.87	-0.810	NS
Intraception	19.60	17.22	1.578	NS
Succorance	9.80	13.87	-2.431	.02
Dominance	14.20	13.74	0.262	NS
Abasement	12.90	15.12	-1.311	NS
Nurturance	15.70	16.74	-0.536	NS
Change	14.60	16.19	-1.263	NS
Endurance	14.10	15.54	-1.005	NS
Heterosexuality	13.40	9.93	1.710	NS
Aggression	9.80	10.06	-0.178	NS

a .05 = 2.021 b .02 = 2.423 c .01 = 2.704

Intraception, Succorance, Abasement, Nurturance, and Change.

The Urban City male principals had higher scores than the female principals for all the variables, except Aggression, in which the male College Sample was significantly higher than the female College Sample, but only one of these differences was significant.

The women teachers in Urban City had higher mean scores than the males (except for Intraception) on the same variables for which the women in the College Sample had significantly higher scores than the men. Again, as was true for the male teachers, only on of the differences was significant.

When the need patterns of male and female elementary teachers were compared, a number of significant differences appeared. As can be seen in Table 12, male teachers had significantly higher needs than female teachers for the variables Achievement (at the .002 level), Autonomy (at the .01 level), Dominance (at the .002 level), and Aggression (at the .05 level). The female teachers had significantly higher mean scores on the variables Affiliation and Nurturance (at the .002 level), and Succorance (at the .01 level).

In general, the relationships between the mean scores of the male and female teachers were similar to those manifested by males and females in the College Sample, but not as many significant differences appeared.

Guba and Jackson,[70] in their study of the need patterns

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[70] Guba and Jackson, loc. cit.

Table 12 A comparison of means attained on the EPPS variables by male elementary teachers (N=36) and female elementary teachers (N=369) in Urban City.

Variable	Male Elementary Teachers	Female Elementary Teachers	"t"	P
Achievement	16.19	13.31	3.513	.002
Deference	13.47	14.60	-1.599	NS
Order	11.91	13.25	-1.613	NS
Exhibition	14.72	13.37	1.598	NS
Autonomy	13.94	12.21	2.890	.01
Affiliation	14.58	17.33	-3.433	.002
Intraception	17.36	17.17	0.240	NS
Succorance	9.88	12.16	-3.000	.01
Dominance	16.77	11.81	5.554	.002
Abasement	12.91	14.57	-1.688	NS
Nurturance	13.44	16.37	-3.423	.002
Change	15.75	16.85	-1.674	NS
Endurance	13.88	14.69	-0.943	NS
Heterosexuality	13.36	12.06	1.453	NS
Aggression	11.77	10.14	2.111	.05

a .05 = 1.960 b .02 = 2.326 c .01 = 2.576 d .002 = 3.090

of teachers, derived norms for male and female elementary teachers. These mean scores were not compared with one another, but were instead compared with Edwards' normative group. When the need patterns of the male elementary teachers in their study were compared with those of the male elementary teachers in Urban City, they were found to be quite similar. On only three of the fifteen variables tested was there a difference in raw scores of at least one point. The Urban City teachers were at least one point lower on the variables Dominance and Aggression.

When the female elementary teachers in Guba and Jackson's study were compared with those from Urban City, on none of the fifteen variables was there as much as one point difference in mean raw scores. Thus the two groups can be considered highly similar.

A comparison of means attained by male and female secondary teachers is presented in Table 13. The male secondary teachers attained significantly higher scores than the women on Autonomy, Dominance, Aggression (all at the .002 level), and Endurance (at the .02 level). The female teachers had significantly higher mean scores for the variables Affiliation, Intraception, and Succorance (at the .01 level), Abasement and Change (at the .02 level).

When Urban City secondary teachers were compared with Guba and Jackson's sample, both similarities and differences were quire apparent.

The Urban City male secondary teachers were very much like those in Guba and Jackson's study. Of the fifteen need variables, only on one (Affiliation) was there as much as a point difference in raw scores. Both groups appeared quite similar in terms of need dispositions.

The female teachers from both groups, on the other hand, were quite different. On nine of the fifteen variables the two groups differed by one point or more with regard to the raw scores. The Urban City teachers were lower on Achievement, Deference, Autonomy, Affiliation, Abasement, Nurturance, and Endurance; they were higher on the variables Change and Heterosexuality.

Differences in intensity and kind of needs of teachers who expressed affinity and disliking for their principals. In line with the Theory of Complementary Needs set forth by Winch, differences in intensity and kinds of needs exhibited by teachers who expressed affinity and disliking for their principals were expected.

HYPOTHESIS 3 (Null Expression)

> Teachers who express affinity for their principals will have need patterns that are no different from those of their principals, and teachers who express disliking for their principals will have need patterns that are no different from their principals.

This similarity will hole true with regard to both intensity and kind of needs. Similarity of need patterns with respect to intensity of needs is expressed in the equation which follows.

$$N_t = N_p$$

Table 13 A comparison of means attained on the EPPS variables by male secondary teachers (N=133) and female secondary teachers (N=119) in Urban City.

Variable	Male Secondary Teachers	Female Secondary Teachers	"t"	P
Achievement	15.73	15.23	0.980	NS
Deference	13.67	13.44	0.444	NS
Order	12.46	12.20	0.404	NS
Exhibition	13.81	13.90	-0.182	NS
Autonomy	14.15	12.53	3.253	.002
Affiliation	13.97	15.62	-2.931	.01
Intraception	15.97	17.10	-2.709	.01
Succorance	9.91	11.60	-2.812	.01
Dominance	16.64	13.95	4.693	.002
Abasement	12.35	13.91	-2.550	.02
Nurturance	13.87	14.97	-1.865	NS
Change	15.63	17.00	-2.382	.02
Endurance	15.54	13.98	2.367	.02
Heterosexuality	13.67	13.26	0.541	NS
Aggression	13.03	11.15	3.567	.002

a .05 = 1.960 b .02 = 2.326 c .01 = 2.576 d .002 = 3.090

when N_t equals the intensity of need patterns manifested by those teachers who express affinity for their principals and by those teachers who express disliking for their principals; N_p represents the intensity of the need patterns manifested by the principals who were the objects of those attitudinal expressions.

Similarity of needs with respect to kind is represented as follows.

$$N_{tx} = N_{px}, N_{ty} = N_{py}, N_{tz} = N_{pz}, \ldots .$$

when N_{tx}, N_{ty}, N_{tz}, ...represent the various needs of teachers who like their principals, and also the various needs of teachers who dislike their principals; and when N_{px}, N_{py}, N_{pz}, ...represent the same needs of those principals who are liked and disliked.

Data in Table 14 indicate that significant differences in intensity of needs were found for two of the fifteen variables. Teachers who disliked their principals had significantly higher mean deviations for the variables Achievement and Abasement (at the .02 and .05 levels respectively). Of the thirteen variables for which no significant differences were found, the mean deviations of the teachers who disliked their principals were higher than those of the teachers who expressed affinity toward their principals on seven.

In Table 15 can be found data regarding the Chi Square analyses of needs which had been judged complementary. In these analyses, the twenty principals with highest scores for

Table 14 A comparison of mean deviation scores attained on the EPPS variables by teachers who expressed affinity (N=244) for their principals and those who expressed disliking (N=229) toward their principals.

Variable	Teachers Who Express Affinity For Their Principals	Teachers Who Dislike Their Principals	"t"	P
Achievement	4.28	5.00	-2.331	.02
Deference	4.04	3.96	0.279	NS
Order	5.11	5.64	-1.437	NS
Exhibition	4.06	4.03	0.100	NS
Autonomy	3.99	4.48	-1.641	NS
Affiliation	4.51	4.74	-0.727	NS
Intraception	5.68	5.48	0.546	NS
Succorance	5.02	4.58	1.400	NS
Dominance	5.55	5.17	1.065	NS
Abasement	5.46	6.30	-2.077	.05
Nurturance	4.95	4.90	0.144	NS
Change	5.26	5.01	0.708	NS
Endurance	4.88	4.98	-0.299	NS
Heterosexuality	7.12	7.27	-0.335	NS
Aggression	4.56	4.57	-0.031	NS

a .05 = 1.960 b .02 = 2.326 c .01 = 2.576

Table 15 Chi Square analyses of complementary needs when one variable (down) represents the need of principals rated high on that variable and the second variable (across) represents the need of teachers who expressed affinity for or dislike of their principals (df=1).

Paired Variables Down	 Across	X^2	P
Dominance	Deference	2.413	NS
Deference	Dominance	8.754*	.005
Aggression	Deference	0.083	NS
Deference	Aggression	8.163*	.005
Change	Order	12.600*	.001
Order	Change	5.432**	.025
Affiliation	Autonomy	1.139	NS
Autonomy	Affiliation	0.978	NS
Nurturance	Succorance	0.157	NS
Succorance	Nurturance	1.976	NS
Aggression	Abasement	4.783**	.05
Abasement	Aggression	0.661	NS

a .05 = 3.841 b .025 = 5.023 c .01 = 6.634 d .005 = 7.879
e .001 = 10.828

*Significant in a direction which did not support the Theory of Complementary

**Significant in a direction which supports the Theory of Complementary Needs.

one of the needs were compared with the complementary need of those teachers who expressed affinity or dislike for their principals. Of the twelve comparisons, five were significant; three were significant in a direction which did not support the Theory of Complementary Needs and two were in a direction which supported the Theory. With regard to the former category, it was found that when principals were high on Deference those teachers who expressed affinity for them were low on Dominance (significant at the .005 level); when high on Deference, the teachers were low on Aggression (significant of the .025 level); and when high on Change the teachers were high on Order (significant at the .005 level). For the latter category, when principals' scores were high on Order, the teachers who expressed affinity for them were low on Change (significant at the .005 level); principals high on Aggression were preferred by teachers high on Abasement (significant at the .05 level).

When principals rated low on a given need were compared with the same need of those teachers who expressed affinity or disliking for them, only one significant difference was found (Table 16). Principals low on the variable Deference were liked by teachers low on Aggression (significant at the .005 level).

With regard to intensity of needs, when the mean scores of teachers who expressed affinity and those who expressed disliking for their principals were compared, the Null Hypothesis could not be rejected. The Theory of Complementary Needs was not supported by the two significant differences

Table 16 Chi Square analyses of complementary needs when one variable (down) represents the need of principals rated low on that variable and the second variable (across) represents the need of teachers who expressed affinity for or disliking of their principals (df=1).

Paired Variables			
Down	Across	X^2	P
Dominance	Deference	0.003	NS
Deference	Dominance	1.756	NS
Aggression	Deference	1.335	NS
Deference	Aggression	5.571**	.025
Change	Order	0.033	NS
Order	Change	0.147	NS
Affiliation	Autonomy	0.281	NS
Autonomy	Affiliation	0.021	NS
Nurturance	Succorance	0.057	NS
Succorance	Nurturance	0.846	NS
Aggression	Abasement	0.179	NS
Abasement	Aggression	0.228	NS

a .05 = 3.841 b .025 = 5.023 c .01 = 6.634

**Significant in a direction which supports the Theory of Complementary Needs.

that were found.

Twenty-four Chi Square analyses of paired needs judged to be complementary yielded six significant differences. Of the six, three did not support the Theory of Complementary Needs and three did support the Theory of Complementary Needs. The evidence did not support the Hypothesis.

Differences in intensity and kind of needs of preferred and least preferred teachers. On the basis of the Theory of Complementary Needs set forth by Winch, it was anticipated that differences in intensity of needs and kind of needs for teachers who were "preferred" and "least preferred" by their principals would occur.

HYPOTHESIS 4 (Null Expression)

> Principals who express a preference to work with certain teachers will have need patterns no different from the need patterns of those teachers, and principals who express an aversion to work with certain teachers will also have need patterns no different from the need patterns of those teachers.

This similarity will hold true with regard to both intensity and kind of needs. Similarity of need patterns with respect to intensity of needs is expressed in the equation which follows.

$$N_p = N_t$$

when N_p equals the intensity of the need patterns manifested by those principals who express a preference or aversion to work with certain teachers; N_t represents the intensity of the need patterns manifested by the teachers who were the objects of those attitudinal expressions.

Similarity of needs with respect to kind is represented as follows.

$$N_{px} = N_{tx}, \quad N_{py} = N_{ty}, \quad N_{pz} = N_{tz}, \ldots.$$

when N_{px}, N_{py}, N_{pz}, ...represent the various needs of principals who prefer to work with certain teachers, and also the various needs of principals who express aversion to work with certain teachers; and when N_{tx}, N_{ty}, N_{tx}, . . .represent the same needs of those teachers toward whom preference and aversion are expressed.

In Table 17, it can be seen that little difference existed with regard to intensity of needs for preferred and least preferred teachers. Only one significant difference occurred; the least preferred teachers had a significantly higher mean than the preferred teachers on the variable Exhibition. Of the fourteen remaining variables for which no significance was ascertained, the means of eight were higher for the least preferred teacher category.

Table 18 portrays the results of twelve Chi Square analyses when principals rated high with regard to a given need variable were compared with the complementary need manifested by those teachers with whom the principals most and least preferred to work. Only one of the analyses was significant. Principals rated high on the variable Aggression preferred to work with teachers low on the variable Abasement (significant at the .05 level). This difference did not support the Theory of Complementary Needs.

Chi Square analyses of the twenty principals rated low on a given need who were compared with the complementary need

Table 17 A comparison of mean deviation scores attained on the EPPS variables by teachers who were most preferred (N=153) and least preferred (N=113) by their principals.

Variable	Most Preferred Teachers	Least Preferred Teachers	"t"	P
Achievement	4.39	4.32	0.160	NS
Deference	3.81	4.28	-1.205	NS
Order	5.06	5.23	-0.353	NS
Exhibition	3.79	4.77	-2.348	.02
Autonomy	4.73	4.43	0.719	NS
Affiliation	4.17	4.26	-0.213	NS
Intraception	5.38	5.96	-1.083	NS
Succorance	5.26	5.02	0.536	NS
Dominance	5.54	5.29	0.499	NS
Abasement	5.24	6.09	-1.492	NS
Nurturance	4.64	5.03	-0.813	NS
Change	5.30	4.74	1.114	NS
Endurance	4.49	4.48	0.024	NS
Heterosexuality	7.00	7.77	-1.201	NS
Aggression	4.17	4.41	-0.534	NS

a .05 = 1.960 b .02 = 2.326 c .01 = 2.576

Table 18 Chi Square analyses of complementary needs when one variable (down) represents the need of principals rated high for that variable and the second variable (across) represents the need of teachers with whom the principals most preferred to work and least preferred to work (df=1).

Paired Variables Down	 Across	X^2	P
Dominance	Deference	0.952	NS
Deference	Dominance	0.045	NS
Deference	Aggression	0.139	NS
Aggression	Deference	0.930	NS
Change	Order	0.041	NS
Order	Change	2.448	NS
Affiliation	Autonomy	0.031	NS
Autonomy	Affiliation	0.042	NS
Nurturance	Succorance	0.618	NS
Succorance	Nurturance	1.347	NS
Aggression	Abasement	3.916*	.05
Abasement	Aggression	2.477	NS

a .05 = 3.841 b .025 = 5.023

*Significant in a direction which did not support the Theory of Complementary Needs.

manifested by those teachers with whom they most preferred and those whom they least preferred to work yielded only one significant difference (Table 19). Principals with low scores on the variable Change preferred working with teachers who were low on the variable Order.

When the mean deviation scores of preferred and least preferred teachers were compared with regard to fifteen need variables, one significant difference was found, and that was not in support of the Theory of Complementary Needs. For the remaining fourteen variables the Null Hypothesis could not be rejected.

Twenty-four Chi Square analyses of needs exhibited by principals and the teachers with whom those principals most and least preferred to work, and which needs were considered complementary, yielded only two significant differences. Neither one supported the Theory of Complementary Needs.

The evidence concerning kind and intensity of needs did not support the Complementary-Needs Hypothesis.

The Executive Professional Leadership score and related teacher-administrator relationship factors. After Gross and Herroitt[71] operationalized the concept of Executive Professional Leadership, they correlated a number of teachers' perceptions about teacher-administrator relationships with EPL to determine if they were highly related. The five

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[71] Gross and Herriott, *op. cit.*, pp. 121-134.

Table 19 Chi Square analyses of complementary needs when one variable (down) represents the need of principals rated low on that variable and the second variable (across) represents the need of teachers with whom the principals most preferred to work or least preferred to work (df=1).

Paired Variables Down	 Across	X^2	P
Dominance	Deference	0.338	NS
Deference	Dominance	0.235	NS
Deference	Aggression	0.407	NS
Aggression	Deference	1.210	NS
Change	Order	5.660*	.025
Order	Change	0.052	NS
Affiliation	Autonomy	0.485	NS
Autonomy	Affiliation	0.419	NS
Nurturance	Succorance	0.053	NS
Succorance	Nurturance	2.088	NS
Aggression	Abasement	0.008	NS
Abasement	Aggression	1.138	NS

a .05 = 3.841 b .025 = 5.023 c .01 = 6.634

*Significant in a direction which did not support the Theory of Complementary Needs.

factors were as follows:

1. Perceived Support of Teacher Authority;
2. Perceived Level of Egalitarian Relationships;
3. Perceived Managerial Support of Teachers;
4. Perceived Social Support of Teachers;
5. Perceived Level of Staff Involvement.

When the five variables were correlated independently with EPL, it was found that for each of them, the relationships were significant at levels ranging from .001 to .02. In this study the extent of the relationship between the five teacher-administrator relationship factors and EPL will be investigated.

HYPOTHESIS 5 (Null Expression)

> No relationship will exist between the Executive Professional Leadership Score and the teacher-administrator relationship scores which are considered concommitants of EPL (i.e., Perceived Support of Teacher Authority, Perceived Level of Egalitarian Relationships, Perceived Managerial Support of Teachers, Perceived Social Support of Teachers, Perceived Staff Involvement.)

$$\mathrm{EPL} \neq f\ \mathrm{TAR}_f$$

when EPL is the Executive Professional Leadership score and TAR_f represents the teacher-administrator relationship scores.

With EPL as a dependent variable, a multiple correlation was calculated to determine the relationship of the five teacher-administrator relationship factors to the constant.

The multiple correlation coefficient of +0.81 is indicative of a high degree of relationship between EPL and the five independent variables. It is clearly observable from Table 20 that two of the variables (Perceived Social Support of Teachers and Perceived Level of Staff Involvement) contributed the most to the multiple correlation coefficient with the other three factors (Perceived Support of Teacher Authority, Perceived Level of Egalitarian Relationships, and Perceived Managerial Support of Teachers) being only negligible contributors.

Table 20 A multiple correlation with Executive Professional Leadership the dependent variable and the five teacher-administrator relationship factors the independent variables.

Variable	Multiple Correlation Coefficient	Partial Correlation Coefficients
Executive Professional Leadership (dependent variable)	+0.81	
Perceived Support of Teacher Authority		+0.08
Perceived Level of Egalitarian Relationships		+0.06
Perceived Managerial Support of Teachers		+0.18
Perceived Social Support of Teachers		+0.46
Perceived Level of Staff Involvement		+0.31

This relationship is all the more apparent when the three independent variables which did not contribute materially to the multiple correlation coefficient were excluded and the correlation was calculated once again utilizing only the two more influential independent variables.

Table 21 A multiple correlation with Executive Professional Leadership the dependent variable and Perceived Social Support of Teachers and Perceived Level of Staff Involvement the independent variables.

Variable	Multiple Correlation Coefficient	Partial Correlation Coefficient
Executive Professioanl Leadership (dependent variable)	+0.80	
Perceived Social Support of Teachers		+0.64
Perceived Level of Staff Involvement		+0.35

When only two of the variables were utilized, the multiple correlation coefficient was +0.80. Clearly, the two independent variables in Table 21 offered as good a measure of EPL as all five variables tested in the previous Table. With only two variables involved, the multiple correlation coefficient differed only an insignificant amount from that obtained when all five variables were included.

In Table 22, a correlation matrix pointing out the relationships between EPL and the five teacher-administrator relationship factors in terms of simple correlations is presented. In this case it is clear that there was not a high degree of relationship between EPL and Perceived Level of Teacher Authority (r = +0.17), and Perceived Level of

Table 22 A correlation matrix depicting relationships between Executive Professional Leadership and five teacher-administrator relationship factors.

	Perceived Support of Teacher Authority	Perceived Level of Egalitarian Relationships	Executive Professional Leadership	Perceived Managerial Support of Teachers	Perceived Social Support of Teachers	Perceived Level of Staff Involvement
Perceived Support of Teacher Authority	1.00					
Perceived Level of Egalitarian Relationships	0.03	1.00				
Executive Professional Leadership	0.17	0.31	1.00			
Perceived Managerial Support of Teachers	0.12	0.28	0.67	1.00		
Perceived Social Support of Teachers	0.15	0.35	0.77	0.73	1.00	
Perceived Level of Staff Involvement	0.12	0.21	0.64	0.54	0.59	1.00

Egalitarian Relationships (r = +0.31). The relationships between EPL and Perceived Managerial Support of Teachers (r = +0.77), and Perceived Level of Staff Involvement (r = +0.64) were considerably higher. It would seem that Perceived Social Support of Teachers, alone, was the most accurate single predictor of EPL. When correlated with EPL, that factor alone was nearly as good a predictor (r = +0.77) as the multiple correlation utilizing all five factors (R = +0.81).

On the basis of the evidence presented, the Null Hypothesis is rejected in this case. All of the five teacher-administrator relationship factors were shown to be positively related to EPL, although in varying degrees. In a multiple correlation all five factors produced a multiple correlation coefficient of +0.81; the same calculation utilizing only two factors (Perceived Social Support of Teachers and Perceived Level of Staff Involvement) produced a multiple correlation coefficient of +0.80. When simple correlations were calculated between and among all the variables (five teacher-administrator relationship factors and EPL) it was found that the best single predictor of EPL was Perceived Social Support of Teachers with a coefficient of correlation of +0.77.

Socio-economic and educational factors, and need patterns.

It is common knowledge that the type of environment in which an individual is born and subsequently reared affects personality development. Therefore, the conditions under which he lives and has lived have an impact on his personality. At this time the Urban City teachers will be viewed in terms of socio-economic factors and the need patterns associated with them.

A comparison of mean need scores attained by teachers from five age groups (the age groups were 1. 21-25 years, 2. 31-35 years, 3. 41-45 years, 4. 51-55 years, and 5. 61-65 years) is presented in Table 23. From rapid inspection of the chart, it is apparent that significant differences existed between age groups. With regard to the variable Deference, there was a definite trend (significant at the .005 level) for the mean raw score to increase with age. This same trend was apparent concerning the need for Order (significant at the .005 level), and Endurance (significant at the .005 level). The opposite trend, for the mean scores to decrease with increases in age occurred with regard to the variables Exhibition and Heterosexuality (both significant at the .005 level). With regard to the variable Dominance, the scores tended to rise with age until the 41-55 year old group and then decrease with age. Clearly, certain need variables were heavily influenced by the age of person.

In a study by Garrison and Scott,[72] involving prospective

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[72] Karl C. Garrison and Mary Hughie Scott, "The Relationship of Selected Personal Characteristics to the Needs of College Students Preparing to Teach," Educational and Psychological Measurement, 22 No.4:753-58, 1962.

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Table 23 A comparison of means attained on the EPPS variables by teachers from five age groups.

Variable	Age Groups 21-25 (N=130)	 31-35 (N=76)	 41-55 (N=51)	 51-55 (N=52)	 61-65 (N=52)	F-statistic	P
Achievement	14.00	14.63	14.25	15.05	13.01	1.869	NS
Deference	12.18	13.84	15.19	15.21	16.44	14.379	.005
Order	10.74	12.89	13.92	13.18	15.44	11.323	.005
Exhibition	14.72	13.85	13.74	13.46	12.01	5.004	.005
Autonomy	12.81	13.23	11.39	12.80	12.21	1.789	NS
Affiliation	16.69	15.53	16.70	15.69	17.00	1.626	NS
Intraception	17.17	15.92	16.82	15.861	16.53	1.361	NS
Succorance	11.85	11.20	11.15	11.59	12.57	0.900	NS
Dominance	13.32	13.77	14.07	13.59	11.01	3.220	.01
Abasement	14.66	13.72	13.62	13.73	15.17	1.211	NS
Nurturance	15.40	14.35	15.52	15.53	16.48	1.619	NS
Change	17.45	17.03	16.25	15.48	16.60	2.066	NS
Endurance	13.17	14.26	15.90	14.82	16.28	5.208	.005
Heterosexuality	15.04	14.43	11.68	11.53	8.38	15.074	.005
Aggression	10.74	11.13	9.62	11.78	10.67	1.820	NS

women teachers (college students), the findings were that younger prospective teachers indicated a greater need for Nurturance than the other respondents. In this study no significant differences were found regarding the variable Nurturance when five age groups were compared. Garrison and Scott also found that older prospective teachers had greater need for Achievement, Endurance, and Aggression. The present study found that older teachers had less need for Achievement, greater need for Endurance, and that there were no significant differences among age groups with regard to the variable Aggression.

When teachers were divided into categories on the basis of the percentage of undergraduate expenses which they earned (Those in category 1. earned 0-25 per cent of their expenses, category 2. earned 26-50 per cent of their expenses, category 3. earned 51-75 per cent of their expenses, and those in category 4. earned 76-100 per cent of their college expenses.) significant patterns are obvious (Table 24). As the percentage of undergraduate expenses earned increases, so did the means on the variables Autonomy (significant at the .005 level), and Dominance (significant at the .005 level). At the same time the mean scores decreased for the variables Affiliation (significant at the .005 level), Succorance (significant at the .01 level), and Nurturance (significant at the .005 level) as the percentage of undergraduate expenses earned increased.

Marital status appears to have substantial impact on personality patterns. The data in Table 25 indicates that

Table 24 A comparison of means attained on EPPS variables by teachers who earned varying percentages of their undergraduate expenses.

Variable	Percentages of Expenses Earned				F-statistic	P
	0-25% (N=267)	26-50% (N=96)	51-75% (N=105)	76-100% (N=183)		
Achievement	13.97	14.18	14.09	14.97	2.117	NS
Deference	14.14	14.07	13.72	14.39	0.562	NS
Order	12.97	12.82	12.77	12.71	0.108	NS
Exhibition	13.90	13.59	13.52	13.28	0.928	NS
Autonomy	12.24	12.21	13.36	13.50	5.015	.005
Affiliation	16.98	16.71	14.92	15.48	8.329	.005
Intraception	16.78	17.13	16.29	17.06	0.785	NS
Succorance	12.13	11.52	11.05	10.77	3.705	.01
Dominance	12.30	13.95	14.15	14.36	7.263	.005
Abasement	13.92	13.44	14.53	13.89	0.810	NS
Nurturance	16.01	16.32	14.94	14.45	5.815	.005
Change	16.75	16.41	16.79	16.32	0.451	NS
Endurance	14.39	15.07	14.91	14.81	0.605	NS
Heterosexuality	12.76	12.16	13.33	12.55	0.679	NS
Aggression	10.71	10.39	11.55	11.45	2.343	NS

Table 25 A comparison of means attained on EPPS variables by teachers of differing marital status.

Variable	Single (N=186)	Married (N=408)	Separated (N=1)	Divorced (N=28)	Widow (N=34)	F-statistic	P
	Marital Status						
Achievement	13.57	14.76	15.00	15.39	12.09	5.609	.005
Deference	13.19	14.45	16.00	14.00	15.82	4.452	.005
Order	1 .42	13.27	12.00	13.57	14.71	6.068	.005
Exhibition	14.13	13.56	13.00	13.14	12.24	2.025	NS
Autonomy	13.33	12.61	14.00	11.50	12.56	1.823	NS
Affiliation	16.92	15.75	19.00	16.61	17.15	3.035	.02
Intraception	17.47	16.67	18.00	15.96	15.91	1.655	NS
Succorance	12.67	10.84	7.00	12.32	12.18	6.03	.005
Dominance	12.65	14.12	17.00	12.61	10.44	6.131	.005
Abasement	14.47	13.59	11.00	13.39	15.59	3.717	.01
Nurturance	15.56	15.25	17.00	16.07	16.65	0.925	NS
Change	16.73	16.59	21.00	15.36	16.41	0.812	NS
Endurance	13.72	15.02	15.00	13.93	16.76	3.855	.005
Heterosexuality	13.39	12.33	13.00	14.43	11.56	1.865	NS
Aggression	10.74	11.16	12.00	11.68	9.91	1.045	NS

significant differences appeared between single, married, divorced and widowed teachers in Urban City. Only one person fell into the separated category, but his scores did not alter the validity of the statistics since an analysis of variance technique designed for use with unequal subclasses was applied to the data. Nevertheless, it would be unwise to make any judgements about a total class of people on the basis of information provided by a single individual. Significant differences for eight of the fifteen variables were found when the teachers were separated according to marital status. The need for Achievement increased (significant at the .005 level) as one moved from the single to the married to the divorced categories, but there was a marked decrease in need for Achievement within the widowed group. The need for Deference was lowest for those in the single category, relatively the same for the married and divorced categories, and increased sharply for widowers (the differences being significant at the .005 level). Those in the single category were lowest with regard to need for Order, the married and divorced categories were approximately the same, but the need for this variable increased sharply for widowers (the differences were significant at the .005 level). The need for Affiliation was highest for those in the single, divorced, and widowed categories, and lowest for those who were married (the difference being significant at the .02 level).

Married teachers appeared to have less need for Succorance than single, divorced, and widowed teachers, all of whom had similar scores (the difference was significant at the .005 level). Widowers expressed the lowest need for Dominance of the four categories, and married teachers expressed the highest need for the same variable, the single and divorced categories were quite similar (significant at the .005 level). Those in the divorced category expressed the lowest need for Abasement of the four categories, with the single teachers being next highest; the married and divorced teachers were lowest on need for Abasement (differences were significant at the .01 level). The single and divorced categories displayed the least need for Endurance, the married category was next highest, and those in the widower category expressed a considerably higher mean score than the other categories (the differences were significant at the .005 level).

The type of community from which a teacher came appeared to have a sizable influence on personality patterns (Table 26). Those teachers from farm communities had the lowest need for Achievement, those from cities and villages were very much alike, and those from the small cities had the greater need to achieve. Those from the farms and villages had greater need for Deference than those from the small and large cities (the difference was significant at the .005 level). For the Urban City teachers, the need for Exhibition increased as the community of origin became more urbanized (the trend being significant at the .01 level). The opposite situation occurred with regard to the variable Intraception; the need

Table 26 A comparison of means attained on EPPS variables by teachers from different types of communities.

	Type of Community					
Variable	Farm (N=95)	Village (N=122)	Small City (N=94)	City (N=340)	F-statistic	P
Achievement	13.64	14.51	15.21	14.13	2.565	.05
Deference	15.09	14.74	13.54	13.76	4.736	.005
Order	14.05	12.53	13.01	12.38	2.523	NS
Exhibition	12.52	13.38	13.89	13.94	3.650	.01
Autonomy	12.37	12.66	12.69	12.96	0.608	NS
Affiliation	16.02	16.90	15.95	16.11	1.275	NS
Intraception	18.09	17.03	16.57	16.46	3.335	.02
Succorance	10.96	11.11	11.57	11.77	1.150	NS
Dominance	12.62	12.98	13.57	13.76	1.544	NS
Abasement	15.34	13.46	13.43	13.80	3.234	.02
Nurturance	16.19	15.68	14.87	15.36	1.431	NS
Change	16.19	17.33	16.63	16.36	1.616	NS
Endurance	15.27	14.33	13.99	14.90	1.467	NS
Heterosexuality	11.10	12.33	13.73	13.00	3.566	.01
Aggression	10.47	10.81	11.25	11.13	0.783	NS

*Farm Community = Very rural, largely farming area.
Village or Town = Under 10,000 population
Small City = 10,000 to 50,000 population
City = 50,000 population or more.

for Intraception decreased as the community became more urbanized. The greatest need for Abasement was manifested by those in the farm category, with the other three categories being quite similar (difference significant at the .02 level). Another linear relationship occurred with regard to the need for Heterosexuality; the farm category achieved the lowest mean score for this variable and the magnitude of the means increased with the corresponding increase in size of community.

Seventy-four of the respondents volunteered the information that, at the time they began teaching, they would have preferred to enter some other occupation but were unable to do so. When these teachers were compared with those who stated that teaching was their first choice, some differences were readily observable (Table 27). Those who did not prefer teaching had significantly higher mean scores on the variables Achievement (significant at the .05 level) and Aggression (significant at the .02 level). They had a significantly lower score (at the .05 level) on the variable Order.

The teachers in Urban City were asked to estimate the economic position of their families within their home communities by determining whether they were in the highest, next highest, third highest, or lowest economic quartile. When the mean scores attained by the groups on the need variablds were compared, only one significant difference was found (Table 28). There is a clear decrease for the variable Heterosexuality as one moves from the highest to

Table 27 A comparison of means attained on the EPPS variables by teachers who preferred teaching as a career (N=582) and by teachers who did not prefer teaching as a career (N=74) in Urban City.

Variable	Teachers Who Preferred Teaching	Teachers Who Did Not Prefer Teaching	"t"	P
Achievement	14.18	15.27	-2.230	.05
Deference	14.24	13.43	1.660	NS
Order	12.97	11.67	2.180	.05
Exhibition	13.65	13.47	0.420	NS
Autonomy	12.72	13.06	-0.760	NS
Affiliation	16.21	16.04	0.327	NS
Intraception	16.83	16.66	0.304	NS
Succorance	11.50	11.36	0.225	NS
Dominance	13.31	14.37	-1.679	NS
Abasement	13.92	13.75	0.257	NS
Nurturance	15.58	14.47	1.924	NS
Change	16.48	17.29	-1.493	NS
Endurance	14.82	13.67	1.771	NS
Heterosexuality	12.63	13.17	-0.738	NS
Aggression	10.84	12.21	-2.527	.02

a .05 = 1.960 b .02 = 2.326 c .01 = 2.576

Table 28 A comparison of means attained on EPPS variables by teachers who perceived their families as being from different economic strata within their communities.

Variable	Economic Strata Highest (N=64)	Second Highest (N=219)	Third Highest (N=286)	Lowest (N=63)	F-statistic	P
Achievement	14.03	13.86	14.59	14.98	1.901	NS
Deference	13.66	13.93	14.51	14.17	1.207	NS
Order	12.16	12.44	13.14	13.62	1.752	NS
Exhibition	13.97	13.76	13.40	13.43	0.591	NS
Autonomy	12.77	12.46	13.01	12.92	0.812	NS
Affiliation	16.14	16.41	16.15	15.00	1.734	NS
Intraception	16.63	17.06	16.60	17.21	0.598	NS
Succorance	11.22	11.60	11.44	11.76	0.198	NS
Dominance	12.84	13.54	13.53	13.75	0.388	NS
Abasement	13.67	13.98	13.72	14.32	0.322	NS
Nurturance	15.88	15.17	15.69	14.65	1.297	NS
Change	17.28	16.36	16.53	16.35	0.727	NS
Endurance	13.61	14.80	14.78	15.17	1.238	NS
Heterosexuality	14.39	13.55	12.07	11.30	5.260	.005
Aggression	11.80	11.07	10.80	11.32	1.054	NS

the lowest economic quartile (significant at the .005 level). Perceived economic status does not appear to be a highly discriminative factor for this population.

There are a variety of reasons that teachers seek advanced academic degrees. Some do so because it will enable them to attain higher salaries; others do so because the school systems or the state make it a condition of continuing employment; and still others attend graduate school for prestige or because they enjoy doing so. Whatever the reasons, the assumption was made that personality differences did exist between those who had advance degrees and those who did not. The data in Table 29 indicate that the assumption was an accurate one. Significant differences were found between the two groups on five of the fifteen variables. Those with Master's degrees had higher mean scores than those with Bachelor's degrees on the variables Achievement and Autonomy (both significant at the .05 level), Deference (significant at the .01 level), and Dominance (significant at the .002 level). Those with Bachelor's degrees had a greater mean for the need Abasement (significant at the .002 level).

It was found that a number of personality differences existed between those who were full-time undergraduate students and those who were part-time undergraduate students. The full-time students were found to have greater need for Achievement and Heterosexuality (both significant at the .05 level). They also had higher mean scores for Succorance

Table 29 A comparison of means attained on the EPPS variables by teachers with Master's degrees (N=136) and those with Bachelor's degrees (N=493) in Urban City.

Variable	Bachelor's Degrees	Master's Degrees	"t"	P
Achievement	14.12	14.97	-2.301	.05
Deference	13.87	14.83	-2.627	.01
Order	12.79	12.88	-0.202	NS
Exhibition	13.78	13.28	1.392	NS
Autonomy	12.57	13.24	-2.106	.05
Affiliation	16.35	15.56	1.739	NS
Intraception	16.79	16.72	0.161	NS
Succorance	11.56	11.41	0.330	NS
Dominance	13.15	14.66	-3.183	.002
Abasement	14.27	12.45	3.776	.002
Nurturance	15.61	14.96	1.482	NS
Change	16.69	16.02	1.512	NS
Endurance	14.50	15.21	-1.500	NS
Heterosexuality	12.95	12.13	1.366	NS
Aggression	10.86	11.50	-1.584	NS

a .05 = 1.960 b .02 = 2.326 c .01 = 2.576 d .002 = 3.090

Table 30 A comparison of means attained on EPPS variables by teachers who were full-time undergraduate students (N=555) and teachers who were part-time undergraduate students (N=98) in Urban City.

Variable	Full-time Undergraduates	Part-time Undergraduates	"t"	P
Achievement	14.48	13.38	2.198	.05
Deference	14.01	14.91	-1.943	NS
Order	12.63	13.87	-2.333	.02
Exhibition	13.83	12.52	3.163	.002
Autonomy	12.71	12.98	-0.602	NS
Affiliation	16.23	15.90	0.784	NS
Intraception	16.71	17.46	-1.572	NS
Succorance	11.69	10.40	3.020	.01
Dominance	13.28	14.34	-1.798	NS
Abasement	13.90	14.11	-0.383	NS
Nurturance	15.45	15.43	0.043	NS
Change	16.61	16.37	0.488	NS
Endurance	14.48	15.77	-2.545	.02
Heterosexuality	12.90	11.36	2.261	.05
Aggression	10.98	11.06	-0.182	NS

a .05 = 1.960 b .02 = 2.326 c .01 = 2.576 d .002 =3.090

(significant at the .01 level) and Exhibition (significant at the .002 level). Part-time undergraduate students were found to have significantly higher need for Order and Endurance (significant at the .02 level).

When teachers were separated on the basis of whether they had attended public or parochial secondary schools, the lack of differences was most noticeable (Table 31). Those who had attended parochial schools had a significantly higher score for the need Exhibition (at the .05 level), but no other significant differences appeared.

If considered desirable, teachers (as a group) can logically be divided into any of a number of different categories. At this time, for purposes of comparing need patterns, it was decided to separate them into lower elementary, upper elementary, junior high school, and senior high school groupings. The data (Table 32) reveal that wide differences existed between the groups with respect to need patterns. A number of relationships occurred which depict increasing mean need scores as one moves from the lower elementary group to the senior high school category. This linear relationship held true with regard to the need variables Achievement and Succorance (both significant at the .005 level). For the variables Autonomy, Affiliation, and Aggression it was partly true; that is, in all three cases the junior high school categories are slightly higher than the senior high school group, but the trends are apparent and the differences are significant for all three

Table 31 A comparison of means attained on the EPPS variables by teachers who attended public secondary schools (N=554) and teachers who attended parochial secondary schools (N=83) in Urban City.

Variable	Former Public School Students	Former Parochial School Students	"t"	P
Achievement	14.28	14.65	-0.708	NS
Deference	14.33	13.39	1.838	NS
Order	12.81	12.93	-0.208	NS
Exhibition	13.44	14.38	-2.013	.05
Autonomy	12.62	13.13	-1.098	NS
Affiliation	16.27	15.54	1.516	NS
Intraception	16.96	16.18	1.485	NS
Succorance	11.57	11.01	1.125	NS
Dominance	13.36	14.07	-1.153	NS
Abasement	13.88	13.93	-0.080	NS
Nurturance	15.51	15.18	0.596	NS
Change	16.52	16.87	-0.713	NS
Endurance	14.75	14.85	-0.165	NS
Heterosexuality	12.68	12.40	0.362	NS
Aggression	10.91	11.42	-1.019	NS

a .05 = 1.960 b .02 = 2.326

Table 32 A comparison of means attained on EPPS variables by teachers from four teaching levels.

Variable	Teaching Level Lower Elementary (N=245)	 Upper Elementary (N=160)	 Jr. High (N=155)	 Sr. High (N=97)	F-statistic	P
Achievement	13.18	14.16	15.43	15.59	13.406	.005
Deference	14.63	14.31	13.19	14.16	3.899	.01
Order	13.34	12.81	12.18	12.59	1.842	NS
Exhibition	13.41	13.61	14.16	13.37	1.372	NS
Autonomy	11.92	13.05	13.44	13.30	6.087	.005
Affiliation	17.64	16.23	14.46	15.21	20.920	.005
Intraception	17.40	16.86	16.30	16.14	2.695	.04
Succorance	12.15	11.66	10.72	10.70	4.348	.005
Dominance	11.55	13.31	15.35	15.41	24.766	.005
Abasement	14.99	13.56	13.48	12.46	7.293	.005
Nurturance	16.50	15.51	13.83	15.27	11.024	.005
Change	16.68	16.85	16.38	16.10	0.693	NS
Endurance	14.73	14.45	14.68	15.01	0.260	NS
Heterosexuality	11.60	13.07	13.90	12.81	5.031	.005
Aggression	10.19	10.43	12.34	11.82	10.581	.005

Lower Elementary = Grades K,1,2,3.
Upper Elementary = Grades 4,5,6.
Junior High School = Grades 7,8,9.
Senior High School = Grades 10,11,12.

variables (at the .005 level).

At numerous times in the educational literature the point has arisen that very possibly different kinds of persons elect to teach different subjects. It has been hypothesized that personality patterns might be one differentiating factor among these people. In Table 33 the mean scores of teachers from ten categories are presented. Although some significant differences were found it would be difficult to do more than state that differences between the lower and higher score for these variables were significantly different. Because of the large number of categories it was not expected that statistical significance regarding differences would be very meaningful, but it was hoped that sight inspection of the chart would provide those concerned with education information about teachers which was not previously available.

Table 33 A comparison of means on EPPS variables by teachers of specific subjects

	MEANS FOR SUBJECT MATTER CATEGORIES											
Variables	English (N=43)	Soc.St. (N=49)	Science (N=27)	Math (N=35)	Languages (N=11)	Home Ec. (N=16)	Business (N=7)	Phys. Ed. (N=11)	Fine Arts (N=26)	Other (N=8)	F-statistic	P
Achievement	15.55	15.08	13.96	15.08	16.90	14.31	14.71	15.36	17.03	18.87	1.885	.05
Deference	12.69	14.87	14.29	13.97	12.09	12.50	16.28	12.45	12.50	13.37	1.887	.05
Order	12.55	13.04	12.48	12.37	13.45	12.00	14.85	12.45	10.92	10.25	0.718	NS
Exhibition	14.39	13.44	14.92	12.14	13.36	14.81	11.00	15.57	15.23	13.00	2.277	.02
Autonomy	12.90	13.51	13.55	13.94	16.09	11.25	11.85	12.36	14.57	11.87	1.860	NS
Affiliation	15.67	14.26	14.37	14.17	14.81	17.18	16.71	14.09	14.19	13.75	1.130	NS
Intraception	17.20	16.67	16.29	17.17	13.54	16.25	15.85	15.18	14.73	17.62	1.207	NS
Succorance	11.86	10.46	8.70	10.94	11.36	12.00	10.28	11.27	10.53	10.37	0.969	NS
Dominance	14.32	15.48	17.18	14.42	15.63	13.43	15.28	14.00	16.00	18.50	1.761	NS
Abasement	13.37	12.89	12.18	14.34	12.81	15.31	11.85	13.45	12.26	8.37	1.802	NS
Nurturance	14.65	13.63	14.96	14.80	14.09	17.00	15.14	14.45	13.15	14.00	1.003	NS
Change	16.67	15.59	16.40	15.80	15.90	16.25	14.85	15.63	17.42	19.25	0.874	NS
Endurance	13.41	14.83	14.62	15.97	13.63	14.81	18.71	14.27	14.15	14.87	1.106	NS
Heterosexuality	13.44	13.69	14.00	12.34	12.45	13.43	11.00	15.54	14.26	13.37	0.528	NS
Aggression	11.20	12.53	12.03	12.54	13.72	9.06	11.57	13.72	12.96	12.50	1.823	NS

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary. The data summarized here were grouped according to the hypotheses to which they were related.

Hypotheses 1 and 2. Principals, in general, had similar need patterns regardless of sex and level of position. Male elementary principals were very much like male secondary principals; so much so, in fact, that not one significant difference could be found when their need profiles were compared. A comparison of male elementary with female elementary principals turned up similar findings; only two of the fifteen need variables were significantly different. The male elementary principals had significantly higher Achievement scores and lower Succorance scores. Because only one female secondary principal participated in the study, no comparison was made between male and female secondary principals or between female elementary and secondary principals.

When need patterns achieved by the total group of principals were compared with those manifested by the total group of teachers, only two significant differences were found. Principals were found to have a significantly greater need for Deference and less need for Autonomy than the teachers.

Extensive differences were found to exist between the need patterns of elementary and secondary teachers.

Statistically significant differences were found for twelve of the fifteen variables.

Elementary teachers had significantly greater mean need scores on the variables Deference, Order, Affiliation, Intraception, Succorance, Abasement, and Nurturance. Secondary teachers exhibited greater need for Achievement, Autonomy, Dominance, Heterosexuality, and Aggression. When the need patterns of male elementary teachers were compared with those of male secondary teachers only one significant difference was found. Male elementary teachers had a higher mean score for the variable Intraception. But when the need patterns of female elementary teachers were compared with those of female secondary teachers significant differences were found for seven variables.

Female elementary teachers manifested greater need than female secondary teachers for Deference, Order, Affiliation, and Nurturance. Secondary female teachers had higher mean scores for Achievement, Dominance, and Aggression.

A comparison of need patterns of male and female elementary teachers also indicated significant differences for seven variables. Men had significantly greater mean scores on the variables Achievement, Autonomy, Dominance, and Aggression. The females had significantly higher scores for the variables Affiliation, Succorance, and Nurturance.

Nine significant differences were found when the need patterns of male and female secondary teachers were compared. Males had significantly higher mean scores on the variables

Autonomy, Dominance, Endurance, and Aggression, and they had significantly lower mean scores than the women with regard to Affiliation, Intraception, Succorance, Abasement, and Change.

Hypotheses 3 and 4. The use of deviation scores as a means of determining the intensity of teachers' needs when compared with their principals' needs indicated that there were few differences between those of teachers who were most preferred and those who were least preferred by their principals. Teachers expressing affinity or dislike for their principals showed little difference in need patterns when compared with each other. The least preferred teachers had a significantly higher mean deviation score for the variable Exhibition than the most preferred teachers, and those teachers who expressed disliking toward their principals had significantly higher mean deviation scores for the variables Achievement and Abasement.

When Chi Square analyses were calculated for ten need variables of twenty principals on which they were rated high and complementary needs exhibited by teachers who expressed affinity or disliking for those principals, significant differences occurred for five of twelve analyses. Two of these were in a direction which supported a Theory of Complementary Needs and three did not. Another twelve Chi Square analyses, again utilizing complementary needs expressed by principals and teachers, but this time involving principals rated low on the same ten variables brought to light only one significant difference, and it also fell in a direction which supported the Theory of Complementary Needs.

Again, utilizing twenty principals rated high and twenty rated low on the same ten variables, twenty-four Chi Square analyses were calculated using the complementary needs of those teachers with whom the principals most preferred to work and those teachers with whom the principals least preferred to work. This time two significant differences were found; neither one was supportive of the Theory of Complementary Needs. The evidence obtained regarding intensity and kind of needs did not support the Complementary-Needs Hypothesis.

Hypothesis 5. As was true when Gross defined the Executive Professional Leadership quality, the five teacher-administrator relationship factors which he also defined were found to be positively related to EPL. However, when a multiple correlation was applied to the data, two of the five factors (Perceived Social Support of Teachers and Perceived Level of Staff Involvement) appeared to be the most significant contributors to the multiple correlation. When only those two factors were correlated with EPL, they yielded a multiple correlation of +0.80, very close to the one obtained (+0.81) when all five factors were considered. The Perceived Social Support of Teachers score was the best single predictor of EPL (r = +0.77).

Socio-economic and educational factors and need patterns. Some socio-economic and educational factors appeared closely related to certain types of need patterns. Age appeared to be a highly discriminative factor. The raw scores for the variables Deference and Order appeared to increase as age increased, and the scores for the need variables Exhibition and Heterosexuality decreased as age increased. The need for Dominance increased until reaching the 41-45 year old age group, and then decreased with increasing age.

The greater the proportion of their undergraduate expenses earned, the greater the Autonomy and Dominance scores of the teachers. There was a corresponding decrease in need for Affiliation, Succorance, and Nurturance with increasing percentage of expenses earned.

Married teachers had less need for Succorance and Affiliation than single, divorced, and widowed teachers. Widowers tended to have high mean scores for Deference, Order, and Endurance, and less need for Achievement and Dominance. The single teachers had lower need for Achievement, Deference, Order, and Endurance, but expressed a high need for Affiliation.

The type of community in which an individual spent most of his youth appeared related to some needs measured by the Edwards Personal Preference Schedule. Teachers from farm communities had significantly less need for Achievement than those from villages, small cities, or larger cities. Those from farms and villages had greater need for Deference than those from the cities. It also seemed that the teachers who spent most of their youth living in a farm or village community had a greater need for Intraception and less need for Heterosexuality than those coming from the small and large cities. The teachers from the villages and cities had considerably lower scores for the need Abasement than did those from farm communities.

Teachers who did not prefer teaching as a career when they entered the profession are characterized by higher needs for Achievement and Aggression and less need for Order than those who did prefer teaching.

The higher the economic strata in which the teacher perceived his family, the greater the need for Heterosexuality.

Teachers with Master's degrees manifested greater need for Achievement, Deference, Autonomy, and Dominance, and less need for Abasement than teachers with Bachelor's degrees.

Those who were part-time undergraduate students expressed less need for Achievement, Exhibition, Succorance, and Heterosexuality than teachers who were full-time undergraduate students. At the same time, former full-time undergraduate students expressed less need for Order and Endurance.

Only one significant difference appeared when teachers who had attended parochial secondary schools were compared with those who had attended public secondary schools; the former parochial school students expressed a greater need for Exhibition.

A comparison of teachers in terms of teaching levels (the four levels being lower elementary, upper elementary junior high school and senior high school) brought to light numerous significant differences. There was a trend for mean scores on the variables Achievement, Autonomy, Aggression, and Dominance to increase as one moves from the lower elementary category to the senior high school group; the opposite trend was noticeable for the variables Affiliation, Intraception, Succorance, Abasement, and Nurturance. Lower elementary teachers appeared to have a lower need for Heterosexuality than the other three groups.

Conclusions. The conclusions presented here were grouped according to the hypotheses to which they were related.

Hypotheses 1 and 2. Principals, as a group, differed from teachers, as a group, only on the two variables Deference and Autonomy. The principals expressed a greater need for Deference and less need for Autonomy than the teachers. This pattern continued regardless of the level or sex of principals or the level or sex of teachers with whom they were compared. The two variables are especially important when viewed in relation to one another, since a high Deference score indicated a greater need to be led or follow others and a lower Autonomy score denoted less need for independence. Either of four factors might account for the occurrences of this pattern. First of all, there is a possibility that teachers with these characteristics tend to gravitate toward principalships, actively seeking them out. A second factor might be that those responsible for selecting principals purposefully select teachers who manifest behavior representative of those needs. This would infer that those doing the selecting find it desirable to have as principals those who exhibit this type of behavior. A third area for consideration might be that the first two possibilities operate in unison. Finally, there is the possibility that the significant differences between teachers and principals were the result of a chance selection of principals.

Numerous differences appeared when the needs of elementary teachers were compared with those of secondary teachers; in fact, significant differences occurred with regard to twelve of the fifteen variables, and nine of these differences were significant at the .002 level.

When the differences between elementary and secondary teachers were explored further, an interesting pattern appeared. Initially, when the need patterns of male elementary and male secondary teachers were compared, only one significant difference appeared. The male elementary teachers had a greater need for Intraception than the male secondary teachers. On the other fourteen variables no significant differences occurred. However, when female elementary teachers were compared with female secondary teachers, significant differences appeared for seven of the fifteen variables. This would indicate that the males at all levels of teaching in Urban City had similar need patterns, but that the need patterns of the females from the elementary and secondary levels quite different. This trend was further accentuated when need patterns of male elementary teachers were compared with those of female elementary teachers and when a secondary male-secondary female comparison was made. At the elementary level, the inter-sex comparison turned up seven significant differences and the secondary comparison showed nine significant differences.

Thus two important, and inter-related, conclusions can be drawn. The first is that the apparent differential in need patterns existing between elementary and secondary teachers was accounted for almost totally by the differences in female need patterns at both levels. The second is that level of teaching has apparently masked the intra-sex differential that existed.

A comparison of male and female elementary teachers from Urban City with those in Guba and Jackson's[73] study indicated that both groups of teachers were highly similar for all fifteen need variables. The authors pointed out that teachers, as a result of the nature of their positions, would be expected to be highly nurturant, affiliative and intraceptive. But as was found for the teachers in their sample, this was not found to be true. It is appropriate here to repeat a quote taken from their study and which was also included in Chapter II of this study.

> Thus existing evidence indicates that teachers, in general, are not highly motivated by a strong interest in social service, by powerful nurturant needs, or even by a deep interest in children.[74]

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[73] Guba and Jackson, loc. cit.

[74] Ibid.

Another parallel between the teachers involved in Guba and Jackson's study and the Urban City teachers can also be drawn. Both groups expressed high need for Deference, Order, and Endurance, and low need for Exhibition and Heterosexuality (when compared to Edwards College Sample). Thus it is again appropriate to repeat another quote taken from their research and which was included in Chapter II of this study.

> These characteristics appear to fit the stereotypic model of the teacher as sexually impotent, obsequious, eternally patient, painstakingly demanding, and socially inept. . .[75]

Care must be taken when one attempts to derive meaning from the low Heterosexuality scores which teachers consistently attain. Although many reasons have been set forth to account for this recurring phenomona, it is here suggested that one influential factor might be an extreme degree of caution exercised by teachers fearful that higher scores on variables of this nature might be misinterpreted. It is highly possible that teachers, not wishing to provide the public with any more grounds for criticism than is currently available, carefully avoid any such situations.

Hypotheses 3 and 4. The Theory of Complementary Needs, was originally developed and researched to explain the mate-selection process, and the research related to that theory has centered around the inter-relationship of need patterns in mate-selection. In this study data was sought as a basis for determining whether or not the same process was operative when the interpersonal relationships existing between teachers and school principals were examined.

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[75] *Ibid*.

On the basis of results obtained from investigating the relationships between intensity of needs of principals and teachers, the conclusion is that the Theory of Complementary Needs was not found to be operative with regard to those relationships. Of the three significant differences that were found, none were in support of the Theory of Complementary Needs.

The Theory of Complementary Needs received some support from the investigation of kinds of needs. Of the eight significant relationships found, three were in support of the Complementary-Needs Hypothesis.

A number of factors might account for the results obtained regarding the Theory of Complementary Needs. It is entirely possible that the influence of need patterns on teacher-administrator relationships differs from that which is operative regarding the mate-selection process. Bowerman and Day,[76] on the basis of their research, concluded that some needs might operate in a complementary manner, others might operate homogamously, and still others may not exert any influence at all.

The possibility also exists that the procedures applied to test the relationships of intensity and kind of needs to the teacher-administrator relationship did not discriminate sufficiently to permit discovery of existing relationships.

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[76] Bowerman and Day, loc. cit.

Hypothesis 5. It is apparent from the data that the extent to which principals gave their teachers social support in the sense of understanding and help with the problems they faced was highly related to whether or not the principals fulfilled the professional role which the teachers saw as desirable. When the Perceived Social Support of Teachers score was combined with the Perceived Level of Staff Involvement score, they yielded a multiple correlation as high as was achieved when all five teacher-administrator factors were involved in the multiple correlation. The conclusion can be drawn that teachers felt they should work with the school administrators and not for them. The act of working with someone also implies the right to participate in the decision-making processes of the institution. It would seem that the remaining three teacher-administrator relationship factors (Perceived Support of Teachers' Authority, Perceived Level of Egalitarian Relationships, and Perceived Managerial Support of Teachers) lacked greater influence within the original multiple correlation because their emphases were restricted and all were encompassed within the remaining two factors (Perceived Social Support of Teachers and Perceived Level of Staff Involvement). After all, a principal who understands and aids in the solution of his teachers' problems would provide adequate support of their authority and sufficient managerial support. It would also seem that when teachers are fully involved in the decision-making processes of the school, equality of relationships is inherent in the situation.

Socio-economic and educational factors, and need patterns. Older teachers had need patterns quite different from those of younger teachers, and for some variables (i.e., Deference, Order, Exhibition, Endurance, and Heterosexuality) the relationship was linear; that is, the magnitude of the need expressed increased or decreased with increasing age. Any of three alternative reasons could account for this pattern. First, the intensity of needs could change with increasing age. Second, the older teachers might be a residual group, the remaining teachers with other need patterns having left the profession. Third, both of the previous two alternatives could be operating concurrently. The evolving pattern is a quite understandable one. As teachers grow older and manifest the attributes characteristic of old age, they become more deferent and have a greater need to handle their affairs in an orderly manner. They also find little need to be exhibitionists or for a high degree of heterosexual relationships. At the same time, they exhibit a greater need for endurance in a world where they must compete with the young and energetic.

Another factor should be mentioned at this point which refers to statements made earlier regarding teachers' scores on the variable Heterosexuality. When the teachers were broken down into age categories, the youngest category manifested a need for Heterosexuality higher than that expressed by any of the other groups of teachers to whom the test was administered. But the need for Heterosexuality appeared to decline rapidly with increasing age so that any average of all teachers would include a great majority whose need for Heterosexuality is in varying states of decline.

It is quite understandable that those who found it necessary to earn their way through college had a greater need to be autonomous and dominant, and less need for Affiliation, Nurturance, and Succorance. They are those people who found it necessary to be independent and, as a result, expressed those needs which are associated with independence.

Investigation of need patterns when teachers were separated according to marital status must be undertaken with caution. It seems reasonable that a large percentage of the single teachers would be younger, and a large percentage of the widowed teachers would be elderly. Thus, one might mistakingly attribute differences to marital status which were actually a function of age. In line with this possibility, it should be noted that the trends for the variables Achievement, Deference, Order, Affiliation, Succorance, Dominance, and Endurance were similar to those which occurred when teachers were separated on the basis of age.

Separation of teachers on the basis of the type of community in which most of their youthful years were spent can also be misleading. If general population mobility patterns are taken into consideration, there would be a strong possibility that many of those who spent their elderly years on a farm were older, and thus even though needs were a factor of age, there might be a tendency to over-estimate the influence of the community. Nevertheless, some trends were apparent. Those coming from farms and villages exhibited greater need for Deference than those from the cities. It might be that, working in a highly urbanized area, those from the cities felt better able to cope with their environment. Teachers who spent most of their youth in the city exhibited less need for Intraception than those from the farms and villages. One conclusion might be that those from the farms and villages had more opportunities to be by themselves and consider the many aspects of the world around them. A factor that might account for the lower need for Heterosexuality exhibited by those from farms and villages is that they always had a great deal of work at hand which was time-consuming and which left them with little time for heterosexual relationships.

Teachers who did not prefer teaching as a career differed from those that did prefer teaching on the variables Achievement and Aggression. This is quite understandable since those entering the field of education generally have limited opportunities for advancement in terms of position and salary. Thus, an aggressive person with a need to achieve might very well prefer some occupation other than teaching. The corollary of this is that those with less aggressive tendencies and less need to achieve select and are happy with their teaching positions.

Division of teachers on the basis of academic degrees earned provided a number of significant differences. As might be expected, those teachers who desired, sought out, and completed Master's degrees had a greater need for

Achievement than those with Bachelor's degrees. It is also highly probable that a much greater percentage of women are content with Bachelor's degrees. Teachers with advanced degrees, who can be viewed as people attempting to improve themselves within their chosen profession, also had significantly higher mean scores for Dominance and Autonomy. Among the people seeking advanced degrees are a number who are seeking advancement in terms of positions and financial remuneration, and these people might be expected to be autonomous and independent. It is also interesting to note that those with advanced degrees tended to have a greater need for Deference; an especially meaningful fact when it is recalled that theprincipals in Urban City were highly deferent when compared to the teachers.

As might be expected, the need patterns of teachers who were part-time undergraduate students were very similar to those of teachers who had earned between seventy-six and one hundred per cent of their undergraduate expenses. Although there are probably other reasons for part-time attendance, the need for finances would be a major factor. Unaccountably, the former full-time students had a significantly higher mean need score for Achievement. The fact that the part-time students exhibited greater need for Order and Endurance, and less for Exhibition is understandable. Going to school part-time while carrying out other activities necessitated a great deal of endurance while maintaining their affairs in an orderly manner and left little time for exhibitionist activities.

When the need patterns of teachers, divided into categories according to teaching level, were compared, numerous differences appeared. There is a strong possibility that these differentials are actually sex-linked. All of the lower elementary teachers were females, and all but thirty-six of the upper elementary teachers were females. On the other hand, fifty-one per cent of the junior and senior high school teachers were male. In fact, it was pointed out earlier that the level at which some females were teaching served as a mask to hide intra-sex differences.

Recommendations. A great deal of research remains to be done with regard to the influence of need patterns on the teacher-administrator relationship.

Newer, more discriminative, procedures must be developed to more effectively investigate the importance of intensity of needs as they affect interpersonal relationships. The Theory of Complementary Needs stated that a complementary relationship exists with regard to both intensity and kind of needs, but the related research is centered on the study of kind of needs. This study represents the first attempt to investigate the Complementary-Needs Hypothesis with regard to intensity of needs.

Research is currently needed to determine how various need patterns are satisfied by different occupational positions. For example, why should any of the subjects an individual might teach better satisfy one need pattern over another, or does the possibility exist that, within any occupational category, all need patterns could be satisfactorily accommodated. Heil's[77] investigation indicates that teachers with highly diverse personality patterns are able to function effectively under varying conditions, thus paving the way for future research regarding the relationship between personality patterns, conditions of work, and effective instruction.

Another area in need of exploration relates to the stability of needs over both limited and extended periods of time. The study by Masling and Stern[78] lent credence to the point of view that personality patterns can change as a result of highly meaningful experiences. Teacher education institutions would find it quite valuable to have data available which could document what personality changes, if any, took place during academic training of prospective teachers.

Those responsible for personnel placement in school systems would find it advantageous to know more about the impact of personality variables on interpersonal relationships within the schools and also as they relate to effectiveness within a given occupational position. The conclusions of Ghiselli and Lodahl[79] and Edward Gross[80] attest to the fact that personality variables influence interpersonal relationships and job effectiveness.

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[77] Heil, loc. cit.

[78] Masling and Stern, loc. cit.

[79] Ghiselli and Lodahl, loc. cit.

[80] Gross (Edward), loc. cit.

It would be quite interesting to examine the interrelationship between teacher-administrator personality patterns and effectiveness of instruction, or the influence of these variables on superintendent-principal relationships and their impact on administrative effectiveness.

Since other instruments which purport to measure aspects of personality are available, research utilizing them should be conducted with the purpose of determining their effectiveness and usefullness within the school setting.

In general, the study of needs and their interrelationships within the educational setting offers a multitude of opportunities for further research.

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APPENDIX A

COVER AND FOLLOW-UP LETTERS

TEACHERS'

COVER LETTER

Dear Staff Member,

Since we have already met and discussed this study, you are aware that we are attempting to determine the influence of teachers' and principals' personal preferences on the relationships between teachers and their administrators.

In attempting to measure these qualities we are using both the Edwards Personal Preference Schedule and the Teacher Section: The National Principalship Study. Please use a pencil with soft lead when answering the questions on the two instruments.

Because we must reuse the Edwards Personal Preference Schedule again very soon, it would be appreciated if you would complete and return them within a few days after receiving them. Read the directions on the front page carefully. Write all answers on the separate answer sheet placed inside the booklet, and please answer all the questions. Do not write you name on any of the enclosed materials. Also note that the answer spaces on the answer sheet have been placed horizontally in groups of five.

On the Teacher Section: The National Principalship Study the answers should be written in the booklet. No identification is required on this instrument.

Again, your cooperation in returning the materials as soon as possible would be greatly appreciated. When the instruments have been completed, seal them inside the stamped addressed envelope in which they were given to you and place the package in any United States mail box.

Thank you very much for your cooperation.

Sincerely,

Harvey Goldman

PRINCIPALS'

COVER LETTER

Dear Principal,

Since we have already met and discussed this study, you are aware that we are attempting to determine the influence of teachers' and principals' personal preferences on the teacher-administrator relationship.

In attempting to measure these qualities we are asking all the principals to complete the enclosed materials which include the Edwards Personal Preference Schedule and the Administrative Preference Form. Please use a pencil with soft lead when answering the questions on both instruments.

With regard to the Edwards Personal Preference Schedule please do not make any marks on the booklet since it must be reused. Read the directions on the front page carefully. Write all answers on the answer sheet placed inside the booklet, and please answer all the questions. Do not write your name on any of the enclosed materials. Also note that the answer spaces on the answer sheet have been placed horizontally in groups of five.

All necessary directions are included on the Administrative Preference Form. No identification is required on the form.

Thank you very much for your cooperation.

Sincerely,

Harvey Goldman

FOLLOW-UP LETTER

Dear ________________________________,

Approximately a week ago, after meeting with you and your fellow staff members to discuss a research project through which the relationship between teachers and their principals is being investigated, research instruments need to be reused, and their return within the next few days would be appreciated.

Thank you for honoring this request. With your cooperation, I am hopeful that new information concerning teacher-principal relationships will evolve from the study.

Thank you once again.

Sincerely,

Harvey Goldman

APPENDIX B

INSTRUMENTS

CN________

ADMINISTRATIVE PREFERENCE FORM

Listed below in alphabetical order are the names of all members of your staff who spend half or more of their working time teaching classes. After careful consideration place a letter X on the line to the left of the ___teachers' names with whom you would most prefer to deal in staff meetings and individual consultation, during conferences and on committees, and in decision-making situations. Then, on the lines to the left of the ___teachers' names with whom you would least prefer to deal in similar situations, place a circle (o).

__1____________________

__2____________________

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THE NATIONAL PRINCIPALSHIP STUDY: TEACHER SECTION

a research study
Sponsored by the
COOPERATIVE RESEARCH PROGRAM
U. S. OFFICE OF EDUCATION
and the
GRADUATE SCHOOL OF EDUCATION
HARVARD UNIVERSITY
20 Oxford Street, Cambridge 38, Massachusetts
APRIL 1961

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GENERAL INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

1. You will find that each section of the questionnaire can be completed rather quickly. Please read the instructions carefully at the heading of each of the sections.

2. Please answer all questions. You may find a few questions inappropriate to your particular situation, but remember that the questionnaire is being given to elementary, junior and senior high school teachers in all regions of the United States. If you feel a question is not appropriate to your situation use the response category, "Not relevant to my situation."

3. If you have difficulty in answering any question, please give us your best estimate or appraisal. If, after responding to a question, you would like to comment on it you may do so in the margin.

4. In completing the questionnaire, you may wonder about the numbering system used and the large numbers and X's occasionally inserted near the places where you are asked to indicate your responses. These procedures have been used to facilitate the I.B.M. tabulation of the data.

5. You will note that a code number has been placed on the front page of the questionnaire. This number provides a way for tabulating the similarities and differences among schools and school systems in teacher's views of the principalship.

6. Please do not place your name anywhere on the questionnaire.

Instructions. Listed below are some activities in which a PRINCIPAL can engage. Please answer Question 3 and Question 4 by writing in Col. I the LETTER and in Col. II the NUMBER which best represent your replies.

Question 3	Question 4
Do you feel the PRINCIPAL OF YOUR SCHOOL should engage in the following activities?	How frequently does your principal do this?
I feel that the principal of my school. . .	My principal. . . . . . . does this. . . . .
A = Absolutely must	1 = Always
B = Preferably should	2 = Almost always
C = May or may not	3 = Occasionally
D = Preferably should not	4 = Almost never
E = Absolutely must not	5 = Never
N = This activity not relevant to my school	N = This activity not relevant to my school

		Col. I	Col. II
11.	Support a teacher's discipline decision that the principal believes is grossly unfair to the child.	☐	☐
14.	Insist that students obey teacher's instructions first, and complain about them later.	☐	☐
15.	Side with the teacher when a student complains about the teacher's behavior, even if the student's complaint is legitimate.	☐	☐
22.	Back the teacher in any public controversy between teacher and student.	☐	☐
14.	Encourage all teachers to call him by his first name, when students are not present.	☐	☐
15.	Make it a practice to have lunch frequently with the teachers in his school.	☐	☐

16. Discourage teachers from treating him as "one of the gang" at informal gatherings of teachers. ☐ ☐

24. Avoid first-name relationships with his teachers. ☐ ☐

25. Insist, tactfully, that teachers show due respect for his position as principal. ☐ ☐

Instructions. Listed below are some activities in which a PRINCIPAL can engage. Please answer Question 3 and Question 4 by writing in Col. I the LETTER and in Col. II the NUMBER which best represent your replies.

Question 3	Question 4
Do you feel the PRINCIPAL OF YOUR SCHOOL should engage in the following activities?	How frequently does your principal do this?
I feel that the principal of my school. . .	My principal does this.
A = Absolutely must B = Preferably should C = May or may not D = Preferably should not E = Absolutely must not	1 = Always 2 = Almost always 3 = Occasionally 4 = Almost never 5 = Never
N = This activity not relevant to my school	N = This activity not relevant to my school

---

Col. I Col. II

11. Share with teachers the responsibility for determining the minimum level of satisfactory student performance in your school. ☐ ☐

12. Share with teachers the responsibility for evaluating how good a job the school is doing. ☐ ☐

13. Share with teachers the responsibility for determining how teachers should be supervised. ☐ ☐

14. Share with teachers the responsibility for developing a policy for handling student discipline problems. ☐ ☐

Instructions. Please answer Question 6 for each statement listed below as it applies to the principal of your school. In answering the question, please write in each box the one letter that best describes the behavior of your principal.

Question 6

To what extent does your PRINCIPAL engage in the following kinds of behavior?

A = Always
B = Almost Always
C = Frequently
D = Occasionally
E = Almost Never
F = Never
N = I do not know

Statements

11. Gives teachers the feeling that their work is an "important" activity. ☐

12. Gets teachers to upgrade their performance standards in their classrooms. ☐

13. Gives teachers the feeling that they can make significant contributions to improving the classroom performance of their students. ☐

15. Makes teachers' meetings a valuable educational activity. ☐

16. Has constructive suggestions to offer teachers in dealing with their major problems. ☐

17. Takes a strong interest in my professional development. ☐

18. Treats teachers as professional workers. ☐

Statements

22. Considers "what is best for all the children" in his decisions affecting educational programs. ☐

25. Maximizes the different skills found in his faculty. ☐

26. Brings to the attention of teachers educational literature that is of value to them in their jobs. ☐

27. Helps teachers to understand the sources of important problems they are facing. ☐

28. Displays a strong interest in improving the quality of the educational program. ☐

12. Procrastinates in his decision making. ☐

21. Displays inconsistency in his decisions. ☐

24. Has the relevant facts before making important decisions. ☐

25. Requires teachers to engage in unnecessary paper work. ☐

32. Makes a teacher's life difficult because of his administrative ineptitude. ☐

33. Runs meetings and conferences in a disorganized fashion. ☐

12. Puts you at ease when you talk with him. ☐

13. Rubs people the wrong way. ☐

16. Develops a real interest in your welfare. ☐

18. Develops a "we-feeling" in working with others. ☐

19. Makes those who work with him feel inferior to him. ☐

20. Displays integrity in his behavior. ☐

Below you are being requested to furnish information about your students, their parents, and your fellow teachers. We ask that you provide this information in the form of percentages, although we know it is difficult to give exact percentages for most of the questions. Please write in your SINGLE BEST ESTIMATE of the percentage that you feel most accurately reflects your situation.

A. Of the STUDENTS you teach, what per cent. . .

11. Are not interested in academic achievement? ____%

13. Have been discipline problems during the last school year? ____%

15. Work up to their intellectual capacities? ____%

17. Were not adequately prepared to do the grade level work you expected of them when they entered your class (or classes)? ____%

33. Are one or more years behind grade level in reading ability? ____%

35. Are not mastering the subject matter or skills you teach at the minimum level of satisfactory performance? ____%

C. Of the TEACHERS in your school, what per cent. .

11. Display a sense of loyalty to the school? ____%

13. Enjoy working in the school? ____%

15. Respect the judgment of the administrators of the school? ____%

17. Work cooperatively with their fellow teachers? ____%

19. Display a sense of pride in the school? ____%

21. Accept the educational philosophy underlying the curriculum of the school? ____%

23. Try new teaching methods in their classrooms? ____%

27. Do everything possible to motivate their students? ____%

33. Do "textbook teaching" only? ____%

37. Take a strong interest in the social or emotional problems of their students? ____%

45. Plan their classes so that different types of students can benefit from them? ____%

47. Provide opportunities for students to go beyond the minimum demands of assigned work? ____%

Instructions. At the heading of the column below is Question 13. Please answer this question for each of the statements found below. In answering the question, write in the one code letter which best represents your answer.

Question 13

How desirous are you of doing the following?

A = I would not want to...
B = I am not especially anxious to...
C = I have some desire to..
D = I would very much like to...
E = I am extremely anxious to...

Statements

11. Become an assistant principal ☐

12. Become the principal of an elementary school. ☐

13. Become the principal of a junior high school. ☐

14. Become the principal of a senior high school. ☐

15. Become a staff specialist attached to a central office. ☐

16. Become an assistant superintendent of schools. ☐

17. Become an associate superintendent of schools. ☐

Statements

18. Become a school superintendent. ☐

19. Remain a teacher in this school for the remainder of my educational career. ☐

20. Remain a teacher in this school system for the remainder of my educational career, but move to a school in a "better neighborhood." ☐

21. Remain a teacher at my present grade level(s) for the remainder of my educational career. ☐

22. Obtain a higher paying teaching job in another school system. ☐

23. Obtain a higher paying position outside the field of education. ☐

Instructions. Our purpose here is to obtain background characteristics of teachers. This information will be used to compare the background of teachers and principals and to examine factors related to the views held by teachers about the principal's role. Please answer the following questions by checking the ONE answer which best specifies your reply.

---

11. How many years have you been a teacher?

____1) 1 year
____2) 2 years
____3) 3 years
____4) 4 years
____5) 5 years
____6) 6-10 years
____7) 11-15 years
____8) 16-20 years
____9) 21-25 years
____0) 26 years or more

12. How many years have you taught in this school system?

____1) 1 year
____2) 2 years
____3) 3 years
____4) 4 years
____5) 5 years
____6) 6-10 years
____7) 11-15 years
____8) 16-20 years
____9) 21-25 years
____0) 26 years or more

13. How many years have you taught in this school?

____1) 1 year
____2) 2 years
____3) 3 years
____4) 4 years
____5) 5 years
____6) 6-10 years
____7) 11-15 years
____8) 16-20 years
____9) 21-25 years
____0) 26 years or more

14. In how many schools in this system have you taught?

____1) 1 school
____2) 2 schools
____3) 3 schools
____4) 4 schools
____5) 5 schools
____6) 6 or more schools

15. At what time do you customarily arrive at school for work?

____1) before 7:30 A.M.
____2) between 7:30 and 8:00 A.M.
____3) between 8:01 and 8:30 A.M.
____4) between 8:31 and 9:00 A.M.
____5) between 9:01 and 9:30 A.M.

16. At what time do you customarily leave school?

____1) before 2:00 P.M.
____2) between 2:00 and 3:00 P.M.
____3) between 3:01 and 4:00 P.M.
____4) between 4:01 and 5:00 P.M.
____5) between 5:01 and 7:00 P.M.
____6) after 7:00 P.M.

17. On the average how frequently do you work on school activities at home?

____1) zero nights per week
____2) one night per week
____3) 2 to 3 nights per week
____4) 4 to 5 nights per week
____5) more than 5 nights per week

18. On the average, how much of your week-end is taken up with school work?

____1) none
____2) very little
____3) some
____4) a great deal

19. On the average, how frequently are you contacted at home about school matters?

____1) once a week or less
____2) 2 to 4 times a week
____3) 5 to 10 times a week
____4) more than 10 times a week

20. When were you born?

___1) 1891-1895
___2) 1896-1900
___3) 1901-1905
___4) 1906-1910
___5) 1911-1915
___6) 1916-1920
___7) 1921-1925
___8) 1926-1930
___9) 1931-1935
___0) 1936-1940

21. Are you:

___1) Female
___2) Male

22. Where were your parents born?

___1) both in the United States
___2) one in U.S. and one foreign born
___3) both foreign born

23. What was your father's MAJOR lifetime occupation?

___1) education
___2) professional (other than education), or scientific
___3) managerial, executive, or proprietor of large business
___4) small business owner or manager
___5) farm owner or rentor
___6) clerical or sales
___7) skilled worker or foreman
___8) semi-skilled worker
___9) unskilled worker or farm laborer
___0) other (specify_________________)

24. What was your mother's MAJOR lifetime occupation (other than housewife)?

___1) none
___2) education
___3) professional (other than education), or scientific
___4) secretarial, clerical
___5) small business owner or manager
___6) skilled worker
___7) domestic worker or unskilled worker
___8) semi-skilled worker
___9) other (specify__________________)

25. What was your father's highest educational attainment?

___1) no formal education
___2) some elementary school
___3) completed elementary school
___4) some high school, technical school or business school
___5) graduated from high school, technical school or business school

___6) some college
___7) graduated from college
___8) graduate or professional school

26. What was your mother's highest educational attainment?

___1) no formal education
___2) some elementary school
___3) completed elementary school
___4) some high school or business school
___5) graduated from high school or business school
___6) some college
___7) graduated from college
___8) graduate or professional school

27. In what type of a community did you spend the MAJOR part of your youth?

___1) farm
___2) village or town (under 10,000)
___3) small city (10,000 - 50,000)
___4) city (50,000 or more)

28. In what type of schools did you receive MOST of your elementary school education?

___1) public
___2) parochial
___3) private

29. In what type of schoold did you receive MOST of your secondary education?

___1) public
___2) parochial
___3) private

30. In general, what was the quality of your work when you were in secondary school?

___1) way above average
___2) above average
___3) average
___4) somewhat below average

31. In general, how active were you in extra-curricular activities when you were in secondary school?

___1) far more active than average
___2) more active than average
___3) about average
___4) somewhat less active than average

32. What was the income position of your parents at the time of your graduation from high school?

___1) highest 25% of our community
___2) second highest 25% of our community
___3) third highest 25% of our community
___4) lowest 25% of our community

33. At what type of college did you do MOST of your undergraduate work?

___1) state university
___2) state teachers' college or normal school
___3) other public college or university
___4) private university
___5) private teachers' college or normal school
___6) other private college

34. In general, what was the quality of your work when you were in college?

___1) graduated with honors
___2) above average
___3) average
___4) somewhat below average

35. In general, how active were you in extra-curricular activities when you were in college?

___1) far more active than average
___2) more active than average
___3) about average
___4) somewhat less active than average

36. At what type of college did you do MOST of your graduate work?

___0) I have not done graduate work
___1) state university
___2) state teachers' college or normal school
___3) other public college or university
___4) private university
___5) private teachers' college or normal school
___6) other private college

37. When you were in undergraduate college what per cent of your expenses did you personally earn?

___1) 0 to 25%
___2) 26 to 50%
___3) 51 to 75%
___4) 76 to 100%

38. In what way did you do MOST of your undergraduate college work?

___1) full-time study
___2) part-time study

39. In what way did you do MOST of your graduate study?

___1) full-time study
___2) part-time study

40. What plans do you have for future formal education?

___1) I have no plans
___2) I plan to take courses, but not toward a specific degree
___3) I plan to study for a master's but not a doctorate
___4) I plan to study for a doctorate

41. How many semester hours of education courses did you have as an undergraduate?

___1) none
___2) 1 to 10
___3) 11 to 20
___4) 21 to 30
___5) 31 to 40
___6) 41 to 50
___7) 51 to 60
___8) more than 60

42. How many semester hours of graduate work have you taken?

___1) none
___2) 1 to 10
___3) 11 to 20
___4) 21 to 30
___5) 31 to 40
___6) 41 to 50
___7) 51 to 60
___8) more than 60

43. What is the highest academic degree which you have received?

___1) certificate
___2) bachelor's
___3) master's
___4) master's plus 30 hours
___5) doctor's

44. What is your marital status?

___1) single
___2) married

___3) separated
___4) divorced
___5) widow or widower

45. Which category best represents your current salary?

___1) Less than $4,000
___2) $4,000 through $4,999
___3) $5,000 through $5,999
___4) $6,000 through $6,999
___5) $7,000 through $7,999
___6) $8,000 through $8,999
___7) $9,000 through $9,999
___8) $10,000 through $10,999
___9) More than $11,000

46. When did the idea FIRST occur to you that you might enter teaching?

___1) Before entering high school
___2) In high school
___3) After completing high school, but before graduating from college
___4) After graduating from college

47. When did you make the FINAL decision to enter teaching?

___1) Before entering high school
___2) In high school
___3) After completing high school, but before graduating from college
___4) After graduating from college

48. At the time you made the FINAL decision did you prefer teaching over any other occupation?

___1) Yes, I preferred teaching
___2) No, I preferred another occupation, but was not able to enter it

49. Which one of the following persons was most influential in your decision to enter teaching?

___1) A member of my family who was a teacher
___2) A friend who was a teacher
___3) Someone else who was a teacher
___4) A member of my family who was not a teacher
___5) A friend who was not a teacher
___6) Someone else who was not a teacher
___7) No one

50. What grade level(s) do you teach? If more than one, indicate your MAJOR grade level with a double check.

___1) K or 1st grade
___2) 2nd grade
___3) 3rd grade
___4) 4th grade
___5) 5th grade
___6) 6th grade
___7) 7th grade
___8) 8th grade
___9) 9th grade
___10) 10th grade
___11) 11th grade
___12) 12th grade

(FOR JUNIOR HIGH AND SENIOR HIGH TEACHERS, AND DEPARTMENTALIZED ELEMENTARY TEACHERS).

51. What subject area(s) do you teach? If more than one, indicate your MAJOR area with a double check.

___1) English
___2) History; social studies
___3) Science
___4) Mathematics
___5) Foreign languages
___6) Home economics
___7) Business or commercial subjects
___8) Physical education; health
___9) Fine arts (music, art, etc.)
___10) Industrial arts
___11) Other (specify____________)

Edwards Personal Preference Schedule

Allen L. Edwards, University of Washington

DIRECTIONS

This schedule consists of a number of pairs of statements about things that you may or may not like; about ways in which you may or may not feel. Look at the example below.

A I like to talk about myself to others.

B I like to work toward some goal that I have set for myself.

Which of these two statements is more characteristic of what you like? If you like "talking about yourself to others" more than you like "working toward some goal that you have set for yourself," then you should choose A over B. If you like "working toward some goal that you have set for yourself" more than you like "talking about yourself to others," then you should choose B over A.

You may like both A and B. In this case, you would have to choose between the two and you should choose the one that you like better. If you dislike both A and B, then you should choose the one that you dislike less.

Some of the pairs of statements in the schedule have to do with your likes, such as A and B above. Other pairs of statements have to do with how you feel. Look at the example below.

A I feel depressed when I fail at something.

B I feel nervous when giving a talk before a group.

Which of these two statements is more characteristic of how you feel? If "being depressed when you fail at something" is more characteristic of you than "being nervous when giving a talk before a group," then you should choose A over B. If B is more characteristic of you than A, then you should choose B over A.

If both statements describe how you feel, then you should choose the one which you think is more characteristic. If neither statement accurately describes how you feel, then you should choose the one which you consider to be less inaccurate.

Your choice, in each instance, should be in terms of what you like and how you feel at the present time, and not in terms of what you think you should like or how you think you should feel. This is not a test. There are no right or wrong answers. Your choices should be a description of your own personal likes and feelings. Make a choice for every pair of statements; do not skip any.

The pairs of statements on the following pages are similar to the examples given above. Read each pair of statements and pick out the one statement that better describes what you like or how you feel. Make no marks in the booklet. On the separate answer sheet are numbers corresponding to the numbers of the pairs of statements. Check to be sure you are marking for the same item number as the item you are reading in the booklet.

If your answer sheet is printed in BLACK ink:	If your answer sheet is printed in BLUE ink:
For each numbered item draw a circle around the A or B to indicate the statement you have chosen.	For each numbered item fill in the space under A or B as shown in the Directions on the answer sheet.

Do not turn this page until the examiner tells you to start.

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1 A I like to help my friends when they are in trouble.
B I like to do my very best in whatever I undertake.

2 A I like to find out what great men have thought about various problems in which I am interested.
B I would like to accomplish something of great significance.

3 A Any written work that I do I like to have precise, neat, and well organized.
B I would like to be a recognized authority in some job, profession, or field of specialization.

4 A I like to tell amusing stories and jokes at parties.
B I would like to write a great novel or play.

5 A I like to be able to come and go as I want to.
B I like to be able to say that I have done a difficult job well.

6 A I like to solve puzzles and problems that other people have difficulty with.
B I like to follow instructions and to do what is expected of me.

7 A I like to experience novelty and change in my daily routine.
B I like to tell my superiors that they have done a good job on something, when I think they have.

8 A I like to plan and organize the details of any work that I have to undertake.
B I like to follow instructions and to do what is expected of me.

9 A I like people to notice and to comment upon my appearance when I am out in public.
B I like to read about the lives of great men.

10 A I like to avoid situations where I am expected to do things in a conventional way.
B I like to read about the lives of great men.

11 A I would like to be a recognized authority in some job, profession, or field of specialization.
B I like to have my work organized and planned before beginning it.

12 A I like to find out what great men have thought about various problems in which I am interested.
B If I have to take a trip, I like to have things planned in advance.

13 A I like to finish any job or task that I begin.
B I like to keep my things neat and orderly on my desk or workspace.

14 A I like to tell other people about adventures and strange things that have happened to me.
B I like to have my meals organized and a definite time set aside for eating.

15 A I like to be independent of others in deciding what I want to do.
B I like to keep my things neat and orderly on my desk or workspace.

16 A I like to be able to do things better than other people can.
B I like to tell amusing stories and jokes at parties.

17 A I like to conform to custom and to avoid doing things that people I respect might consider unconventional.
B I like to talk about my achievements.

18 A I like to have my life so arranged that it runs smoothly and without much change in my plans.
B I like to tell other people about adventures and strange things that have happened to me.

19 A I like to read books and plays in which sex plays a major part.
B I like to be the center of attention in a group.

20 A I like to criticize people who are in a position of authority.
B I like to use words which other people often do not know the meaning of.

21 A I like to accomplish tasks that others recognize as requiring skill and effort.
B I like to be able to come and go as I want to.

22 A I like to praise someone I admire.
B I like to feel free to do what I want to do.

23 A I like to keep my letters, bills, and other papers neatly arranged and filed according to some system.
B I like to be independent of others in deciding what I want to do.

24 A I like to ask questions which I know no one will be able to answer.
B I like to criticize people who are in a position of authority.

25 A I get so angry that I feel like throwing and breaking things.
B I like to avoid responsibilities and obligations.

26 A I like to be successful in things undertaken.
B I like to form new friendships.

27 A I like to follow instructions and to do what is expected of me.
B I like to have strong attachments with my friends.

28 A Any written work that I do I like to have precise, neat, and well organized.
B I like to make as many friends as I can.

29 A I like to tell amusing stories and jokes at parties.
B I like to write letters to my friends.

30 A I like to be able to come and go as I want to.
B I like to share things with my friends.

31 A I like to solve puzzles and problems that other people have difficulty with.
B I like to judge people by why they do something—not by what they actually do.

32 A I like to accept the leadership of people I admire.
B I like to understand how my friends feel about various problems they have to face.

33 A I like to have my meals organized and a definite time set aside for eating.
B I like to study and to analyze the behavior of others.

34 A I like to say things that are regarded as witty and clever by other people.

B I like to put myself in someone else's place and to imagine how I would feel in the same situation.

35 A I like to feel free to do what I want to do.

B I like to observe how another individual feels in a given situation.

36 A I like to accomplish tasks that others recognize as requiring skill and effort.

B I like my friends to encourage me when I meet with failure.

37 A When planning something, I like to get suggestions from other people whose opinions I respect.

B I like my friends to treat me kindly.

38 A I like to have my life so arranged that it runs smoothly and without much change in my plans.

B I like my friends to feel sorry for me when I am sick.

39 A I like to be the center of attention in a group.

B I like my friends to make a fuss over me when I am hurt or sick.

40 A I like to avoid situations where I am expected to do things in a conventional way.

B I like my friends to sympathize with me and to cheer me up when I am depressed.

41 A I would like to write a great novel or play.

B When serving on a committee, I like to be appointed or elected chairman.

42 A When I am in a group, I like to accept the leadership of someone else in deciding what the group is going to do.

B I like to supervise and to direct the actions of other people whenever I can.

43 A I like to keep my letters, bills, and other papers neatly arranged and filed according to some system.

B I like to be one of the leaders in the organizations and groups to which I belong.

44 A I like to ask questions which I know no one will be able to answer.

B I like to tell other people how to do their jobs.

45 A I like to avoid responsibilities and obligations.

B I like to be called upon to settle arguments and disputes between others.

46 A I would like to be a recognized authority in some job, profession, or field of specialization.

B I feel guilty whenever I have done something I know is wrong.

47 A I like to read about the lives of great men.

B I feel that I should confess the things that I have done that I regard as wrong.

48 A I like to plan and organize the details of any work that I have to undertake.

B When things go wrong for me, I feel that I am more to blame than anyone else.

49 A I like to use words which other people often do not know the meaning of.

B I feel that I am inferior to others in most respects.

50 A I like to criticize people who are in a position of authority.

B I feel timid in the presence of other people I regard as my superiors.

51 A I like to do my very best in whatever I undertake.

B I like to help other people who are less fortunate than I am.

52 A I like to find out what great men have thought about various problems in which I am interested.

B I like to be generous with my friends.

53 A I like to make a plan before starting in to do something difficult.

B I like to do small favors for my friends.

54 A I like to tell other people about adventures and strange things that have happened to me.

B I like my friends to confide in me and to tell me their troubles.

55 A I like to say what I think about things.

B I like to forgive my friends who may sometimes hurt me.

56 A I like to be able to do things better than other people can.

B I like to eat in new and strange restaurants.

57 A I like to conform to custom and to avoid doing things that people I respect might consider unconventional.

B I like to participate in new fads and fashions.

58 A I like to have my work organized and planned before beginning it.

B I like to travel and to see the country.

59 A I like people to notice and to comment upon my appearance when I am out in public.

B I like to move about the country and to live in different places.

60 A I like to be independent of others in deciding what I want to do.

B I like to do new and different things.

61 A I like to be able to say that I have done a difficult job well.

B I like to work hard at any job I undertake.

62 A I like to tell my superiors that they have done a good job on something, when I think they have.

B I like to complete a single job or task at a time before taking on others.

63 A If I have to take a trip, I like to have things planned in advance.

B I like to keep working at a puzzle or problem until it is solved.

64 A I sometimes like to do things just to see what effect it will have on others.

B I like to stick at a job or problem even when it may seem as if I am not getting anywhere with it.

65 **A** I like to do things that other people regard as unconventional.
B I like to put in long hours of work without being distracted.

66 **A** I would like to accomplish something of great significance.
B I like to kiss attractive persons of the opposite sex.

67 **A** I like to praise someone I admire.
B I like to be regarded as physically attractive by those of the opposite sex.

68 **A** I like to keep my things neat and orderly on my desk or workspace.
B I like to be in love with someone of the opposite sex.

69 **A** I like to talk about my achievements.
B I like to listen to or to tell jokes in which sex plays a major part.

70 **A** I like to do things in my own way and without regard to what others may think.
B I like to read books and plays in which sex plays a major part.

71 **A** I would like to write a great novel or play.
B I like to attack points of view that are contrary to mine.

72 **A** When I am in a group, I like to accept the leadership of someone else in deciding what the group is going to do.
B I feel like criticizing someone publicly if he deserves it.

73 **A** I like to have my life so arranged that it runs smoothly and without much change in my plans.
B I get so angry that I feel like throwing and breaking things.

74 **A** I like to ask questions which I know no one will be able to answer.
B I like to tell other people what I think of them.

75 **A** I like to avoid responsibilities and obligations.
B I feel like making fun of people who do things that I regard as stupid.

76 **A** I like to be loyal to my friends.
B I like to do my very best in whatever I undertake.

77 **A** I like to observe how another individual feels in a given situation.
B I like to be able to say that I have done a difficult job well.

78 **A** I like my friends to encourage me when I meet with failure.
B I like to be successful in things undertaken.

79 **A** I like to be one of the leaders in the organizations and groups to which I belong.
B I like to be able to do things better than other people can.

80 **A** When things go wrong for me, I feel that I am more to blame than anyone else.
B I like to solve puzzles and problems that other people have difficulty with.

81 **A** I like to do things for my friends.
B When planning something, I like to get suggestions from other people whose opinions I respect.

82 **A** I like to put myself in someone else's place and to imagine how I would feel in the same situation.
B I like to tell my superiors that they have done a good job on something, when I think they have.

83 **A** I like my friends to be sympathetic and understanding when I have problems.
B I like to accept the leadership of people I admire.

84 **A** When serving on a committee, I like to be appointed or elected chairman.
B When I am in a group, I like to accept the leadership of someone else in deciding what the group is going to do.

85 **A** If I do something that is wrong, I feel that I should be punished for it.
B I like to conform to custom and to avoid doing things that people I respect might consider unconventional.

86 **A** I like to share things with my friends.
B I like to make a plan before starting in to do something difficult.

87 **A** I like to understand how my friends feel about various problems they have to face.
B If I have to take a trip, I like to have things planned in advance.

88 **A** I like my friends to treat me kindly.
B I like to have my work organized and planned before beginning it.

89 **A** I like to be regarded by others as a leader.
B I like to keep my letters, bills, and other papers neatly arranged and filed according to some system.

90 **A** I feel that the pain and misery that I have suffered has done me more good than harm.
B I like to have my life so arranged that it runs smoothly and without much change in my plans.

91 **A** I like to have strong attachments with my friends.
B I like to say things that are regarded as witty and clever by other people.

92 **A** I like to think about the personalities of my friends and to try to figure out what makes them as they are.
B I sometimes like to do things just to see what effect it will have on others.

93 **A** I like my friends to make a fuss over me when I am hurt or sick.
B I like to talk about my achievements.

94 **A** I like to tell other people how to do their jobs.
B I like to be the center of attention in a group.

95 **A** I feel timid in the presence of other people I regard as my superiors.
B I like to use words which other people often do not know the meaning of.

96 **A** I like to do things with my friends rather than by myself.
B I like to say what I think about things.

97 **A** I like to study and to analyze the behavior of others.
B I like to do things that other people regard as unconventional.

98 **A** I like my friends to feel sorry for me when I am sick.
B I like to avoid situations where I am expected to do things in a conventional way.

99 **A** I like to supervise and to direct the actions of other people whenever I can.
B I like to do things in my own way without regard to what others may think.

100 **A** I feel that I am inferior to others in most respects.
B I like to avoid responsibilities and obligations.

101 **A** I like to be successful in things undertaken.
B I like to form new friendships.

102 **A** I like to analyze my own motives and feelings.
B I like to make as many friends as I can.

103 **A** I like my friends to help me when I am in trouble.
B I like to do things for my friends.

104 **A** I like to argue for my point of view when it is attacked by others.
B I like to write letters to my friends.

105 **A** I feel guilty whenever I have done something I know is wrong.
B I like to have strong attachments with my friends.

106 **A** I like to share things with my friends.
B I like to analyze my own motives and feelings.

107 **A** I like to accept the leadership of people I admire.
B I like to understand how my friends feel about various problems they have to face.

108 **A** I like my friends to do many small favors for me cheerfully.
B I like to judge people by why they do something—not by what they actually do.

109 **A** When with a group of people, I like to make the decisions about what we are going to do.
B I like to predict how my friends will act in various situations.

110 **A** I feel better when I give in and avoid a fight, than I would if I tried to have my own way.
B I like to analyze the feelings and motives of others.

111 **A** I like to form new friendships.
B I like my friends to help me when I am in trouble.

112 **A** I like to judge people by why they do something—not by what they actually do.
B I like my friends to show a great deal of affection toward me.

113 **A** I like to have my life so arranged that it runs smoothly and without much change in my plans.
B I like my friends to feel sorry for me when I am sick.

114 **A** I like to be called upon to settle arguments and disputes between others.
B I like my friends to do many small favors for me cheerfully.

115 **A** I feel that I should confess the things that I have done that I regard as wrong.
B I like my friends to sympathize with me and to cheer me up when I am depressed.

116 **A** I like to do things with my friends rather than by myself.
B I like to argue for my point of view when it is attacked by others.

117 **A** I like to think about the personalities of my friends and to try to figure out what makes them as they are.
B I like to be able to persuade and influence others to do what I want to do.

118 **A** I like my friends to sympathize with me and to cheer me up when I am depressed.
B When with a group of people, I like to make the decisions about what we are going to do.

119 **A** I like to ask questions which I know no one will be able to answer.
B I like to tell other people how to do their jobs.

120 **A** I feel timid in the presence of other people I regard as my superiors.
B I like to supervise and to direct the actions of other people whenever I can.

121 **A** I like to participate in groups in which the members have warm and friendly feelings toward one another.
B I feel guilty whenever I have done something I know is wrong.

122 **A** I like to analyze the feelings and motives of others.
B I feel depressed by my own inability to handle various situations.

123 **A** I like my friends to feel sorry for me when I am sick.
B I feel better when I give in and avoid a fight, than I would if I tried to have my own way.

124 **A** I like to be able to persuade and influence others to do what I want.
B I feel depressed by my own inability to handle various situations.

125 **A** I like to criticize people who are in a position of authority.
B I feel timid in the presence of other people I regard as my superiors.

126 **A** I like to participate in groups in which the members have warm and friendly feelings toward one another.
B I like to help my friends when they are in trouble.

127 **A** I like to analyze my own motives and feelings.
B I like to sympathize with my friends when they are hurt or sick.

128 **A** I like my friends to help me when I am in trouble.
B I like to treat other people with kindness and sympathy.

129 **A** I like to be one of the leaders in the organizations and groups to which I belong.
B I like to sympathize with my friends when they are hurt or sick.

130 **A** I feel that the pain and misery that I have suffered has done me more good than harm.
B I like to show a great deal of affection toward my friends.

131 **A** I like to do things with my friends rather than by myself.
B I like to experiment and to try new things.

132 **A** I like to think about the personalities of my friends and to try to figure out what makes them as they are.
B I like to try new and different jobs—rather than to continue doing the same old things.

133 **A** I like my friends to be sympathetic and understanding when I have problems.
B I like to meet new people.

134 **A** I like to argue for my point of view when it is attacked by others.
B I like to experience novelty and change in my daily routine.

135 **A** I feel better when I give in and avoid a fight, than I would if I tried to have my own way.
B I like to move about the country and to live in different places.

136 **A** I like to do things for my friends.
B When I have some assignment to do, I like to start in and keep working on it until it is completed.

137 **A** I like to analyze the feelings and motives of others.
B I like to avoid being interrupted while at my work.

138 **A** I like my friends to do many small favors for me cheerfully.
B I like to stay up late working in order to get a job done.

139 **A** I like to be regarded by others as a leader.
B I like to put in long hours of work without being distracted.

140 **A** If I do something that is wrong, I feel that I should be punished for it.
B I like to stick at a job or problem even when it may seem as if I am not getting anywhere with it.

141 **A** I like to be loyal to my friends.
B I like to go out with attractive persons of the opposite sex.

142 **A** I like to predict how my friends will act in various situations.
B I like to participate in discussions about sex and sexual activities.

143 **A** I like my friends to show a great deal of affection toward me.
B I like to become sexually excited.

144 **A** When with a group of people, I like to make the decisions about what we are going to do.
B I like to engage in social activities with persons of the opposite sex.

145 **A** I feel depressed by my own inability to handle various situations.
B I like to read books and plays in which sex plays a major part.

146 **A** I like to write letters to my friends.
B I like to read newspaper accounts of murders and other forms of violence.

147 **A** I like to predict how my friends will act in various situations.
B I like to attack points of view that are contrary to mine.

148 **A** I like my friends to make a fuss over me when I am hurt or sick.
B I feel like blaming others when things go wrong for me.

149 **A** I like to tell other people how to do their jobs.
B I feel like getting revenge when someone has insulted me.

150 **A** I feel that I am inferior to others in most respects.
B I feel like telling other people off when I disagree with them.

151 **A** I like to help my friends when they are in trouble.
B I like to do my very best in whatever I undertake.

152 **A** I like to travel and to see the country.
B I like to accomplish tasks that others recognize as requiring skill and effort.

153 **A** I like to work hard at any job I undertake.
B I would like to accomplish something of great significance.

154 **A** I like to go out with attractive persons of the opposite sex.
B I like to be successful in things undertaken.

155 **A** I like to read newspaper accounts of murders and other forms of violence.
B I would like to write a great novel or play.

156 **A** I like to do small favors for my friends.
B When planning something, I like to get suggestions from other people whose opinions I respect.

157 **A** I like to experience novelty and change in my daily routine.
B I like to tell my superiors that they have done a good job on something, when I think they have.

158 **A** I like to stay up late working in order to get a job done.
B I like to praise someone I admire.

159 **A** I like to become sexually excited.
B I like to accept the leadership of people I admire.

160 **A** I feel like getting revenge when someone has insulted me.
B When I am in a group, I like to accept the leadership of someone else in deciding what the group is going to do.

161 **A** I like to be generous with my friends.
B I like to make a plan before starting in to do something difficult.

162 A I like to meet new people.
B Any written work that I do I like to have precise, neat, and well organized.

163 A I like to finish any job or task that I begin.
B I like to keep my things neat and orderly on my desk or workspace.

164 A I like to be regarded as physically attractive by those of the opposite sex.
B I like to plan and organize the details of any work that I have to undertake.

165 A I like to tell other people what I think of them.
B I like to have my meals organized and a definite time set aside for eating.

166 A I like to show a great deal of affection toward my friends.
B I like to say things that are regarded as witty and clever by other people.

167 A I like to try new and different jobs—rather than to continue doing the same old things.
B I sometimes like to do things just to see what effect it will have on others.

168 A I like to stick at a job or problem even when it may seem as if I am not getting anywhere with it.
B I like people to notice and to comment upon my appearance when I am out in public.

169 A I like to read books and plays in which sex plays a major part.
B I like to be the center of attention in a group.

170 A I feel like blaming others when things go wrong for me.
B I like to ask questions which I know no one will be able to answer.

171 A I like to sympathize with my friends when they are hurt or sick.
B I like to say what I think about things.

172 A I like to eat in new and strange restaurants.
B I like to do things that other people regard as unconventional.

173 A I like to complete a single job or task at a time before taking on others.
B I like to feel free to do what I want to do.

174 A I like to participate in discussions about sex and sexual activities.
B I like to do things in my own way without regard to what others may think.

175 A I get so angry that I feel like throwing and breaking things.
B I like to avoid responsibilities and obligations.

176 A I like to help my friends when they are in trouble.
B I like to be loyal to my friends.

177 A I like to do new and different things.
B I like to form new friendships.

178 A When I have some assignment to do, I like to start in and keep working on it until it is completed.
B I like to participate in groups in which the members have warm and friendly feelings toward one another.

179 A I like to go out with attractive persons of the opposite sex.
B I like to make as many friends as I can.

180 A I like to attack points of view that are contrary to mine.
B I like to write letters to my friends.

181 A I like to be generous with my friends.
B I like to observe how another individual feels in a given situation.

182 A I like to eat in new and strange restaurants.
B I like to put myself in someone else's place and to imagine how I would feel in the same situation.

183 A I like to stay up late working in order to get a job done.
B I like to understand how my friends feel about various problems they have to face.

184 A I like to become sexually excited.
B I like to study and to analyze the behavior of others.

185 A I feel like making fun of people who do things that I regard as stupid.
B I like to predict how my friends will act in various situations.

186 A I like to forgive my friends who may sometimes hurt me.
B I like my friends to encourage me when I meet with failure.

187 A I like to experiment and to try new things.
B I like my friends to be sympathetic and understanding when I have problems.

188 A I like to keep working at a puzzle or problem until it is solved.
B I like my friends to treat me kindly.

189 A I like to be regarded as physically attractive by those of the opposite sex.
B I like my friends to show a great deal of affection toward me.

190 A I feel like criticizing someone publicly if he deserves it.
B I like my friends to make a fuss over me when I am hurt or sick.

191 A I like to show a great deal of affection toward my friends.
B I like to be regarded by others as a leader.

192 A I like to try new and different jobs—rather than to continue doing the same old things.
B When serving on a committee, I like to be appointed or elected chairman.

193 A I like to finish any job or task that I begin.
B I like to be able to persuade and influence others to do what I want.

194 **A** I like to participate in discussions about sex and sexual activities.
B I like to be called upon to settle arguments and disputes between others.

195 **A** I get so angry that I feel like throwing and breaking things.
B I like to tell other people how to do their jobs.

196 **A** I like to show a great deal of affection toward my friends.
B When things go wrong for me, I feel that I am more to blame than anyone else.

197 **A** I like to move about the country and to live in different places.
B If I do something that is wrong, I feel that I should be punished for it.

198 **A** I like to stick at a job or problem even when it may seem as if I am not getting anywhere with it.
B I feel that the pain and misery that I have suffered has done me more good than harm.

199 **A** I like to read books and plays in which sex plays a major part.
B I feel that I should confess the things that I have done that I regard as wrong.

200 **A** I feel like blaming others when things go wrong for me.
B I feel that I am inferior to others in most respects.

201 **A** I like to do my very best in whatever I undertake.
B I like to help other people who are less fortunate than I am.

202 **A** I like to do new and different things.
B I like to treat other people with kindness and sympathy.

203 **A** When I have some assignment to do, I like to start in and keep working on it until it is completed.
B I like to help other people who are less fortunate than I am.

204 **A** I like to engage in social activities with persons of the opposite sex.
B I like to forgive my friends who may sometimes hurt me.

205 **A** I like to attack points of view that are contrary to mine.
B I like my friends to confide in me and to tell me their troubles.

206 **A** I like to treat other people with kindness and sympathy.
B I like to travel and to see the country.

207 **A** I like to conform to custom and to avoid doing things that people I respect might consider unconventional.
B I like to participate in new fads and fashions.

208 **A** I like to work hard at any job I undertake.
B I like to experience novelty and change in my daily routine.

209 **A** I like to kiss attractive persons of the opposite sex.
B I like to experiment and to try new things.

210 **A** I feel like telling other people off when I disagree with them.
B I like to participate in new fads and fashions.

211 **A** I like to help other people who are less fortunate than I am.
B I like to finish any job or task that I begin.

212 **A** I like to move about the country and to live in different places.
B I like to put in long hours of work without being distracted.

213 **A** If I have to take a trip, I like to have things planned in advance.
B I like to keep working at a puzzle or problem until it is solved.

214 **A** I like to be in love with someone of the opposite sex.
B I like to complete a single job or task before taking on others.

215 **A** I like to tell other people what I think of them.
B I like to avoid being interrupted while at my work.

216 **A** I like to do small favors for my friends.
B I like to engage in social activities with persons of the opposite sex.

217 **A** I like to meet new people.
B I like to kiss attractive persons of the opposite sex.

218 **A** I like to keep working at a puzzle or problem until it is solved.
B I like to be in love with someone of the opposite sex.

219 **A** I like to talk about my achievements.
B I like to listen to or to tell jokes in which sex plays a major part.

220 **A** I feel like making fun of people who do things that I regard as stupid.
B I like to listen to or to tell jokes in which sex plays a major part.

221 **A** I like my friends to confide in me and to tell me their troubles.
B I like to read newspaper accounts of murders and other forms of violence.

222 **A** I like to participate in new fads and fashions.
B I feel like criticizing someone publicly if he deserves it.

223 **A** I like to avoid being interrupted while at my work.
B I feel like telling other people off when I disagree with them.

224 **A** I like to listen to or to tell jokes in which sex plays a major part.
B I feel like getting revenge when someone has insulted me.

225 **A** I like to avoid responsibilities and obligations.
B I feel like making fun of people who do things that I regard as stupid.